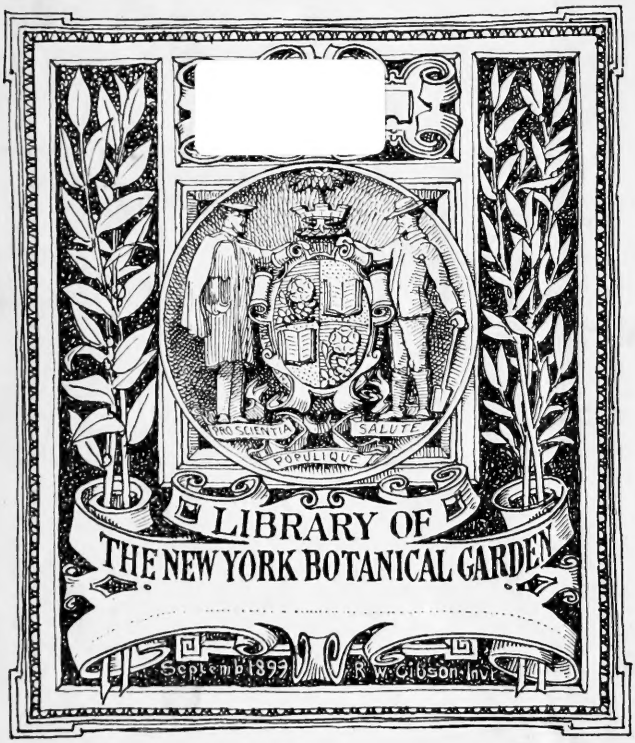
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TRANSACTIONS

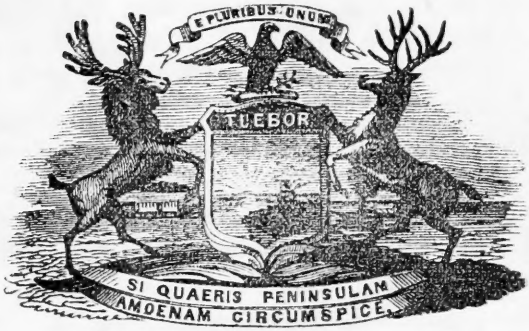
OF THE

STATE AGRICULTURAL SOCIETY:

WITH REPORTS OF

COUNTY AGRICULTURAL SOCIETIES,

FOR 1855.



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VOL. VII.

J. C. HOLMES,

SECRETARY OF THE MICHIGAN STATE AGRICULTURAL SOCIETY.

OFFICE IN DETROIT.

LANSING:

HOSMER & FITCH, PRINTERS TO THE STATE.

1856.

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OFFICERS FOR 1856.

PRESIDENT.

M. SHOEMAKER, Jackson.

EXECUTIVE COMMITTEE.

*F. W. BACKUS, Detroit,
*HORACE WELCH, Ypsilanti,
*A. N. HART, Lapeer,
*EDWARD G. MORTON, Monroe,
C. A. GREEN, Troy,
JOHN MILLER, Tecumseh,
*J. B. CRIPPEN, Coldwater,
JUSTUS GAGE, Dowagiac,
J. K. KINMAN, Jonesville,
WM. L. P. LITTLE, Saginaw,
A. Y. MOORE, Schoolcraft,
*W. S. H. WELTON, Grand Rapids.

TREASURER.

BENJ. FOLLETT, Ypsilanti.

SECRETARY.

J. C. HOLMES, Detroit.

The Society's Rooms are in Cooper's building, over No. 130 Jefferson Avenue, Detroit.

*Elected for two years.

ANNUAL REPORT

OF THE

MICHIGAN STATE AGRICULTURAL SOCIETY FOR 1855.

OFFICE OF THE MICH. STATE AGRICULTURAL SOCIETY,
Detroit, April 10th, 1856.

To the Secretary of State:

SIR—I have the honor herewith to transmit to you the Seventh Annual Report of the Michigan State Agricultural Society.

Very respectfully,

J. C. HOLMES,

Sec'y Mich. State Agricultural Society.

CONSTITUTION

OF THE MICHIGAN STATE AGRICULTURAL SOCIETY.

ARTICLE 1. The name of this association shall be "The Michigan State Agricultural Society," and its object shall be to promote the improvement of agriculture and its kindred arts, throughout the State of Michigan.

ART. 2. The officers of this Society shall be a President, one Vice President in each organized county in the State, a Recording Secretary and a Treasurer, and the Corresponding Secretary of each organized County Agricultural Society shall be the Corresponding Secretary of this Society for their county; and any county not having an organized County Agricultural Society shall not be entitled to a Corresponding Secretary of the State Society; and an Executive Committee consisting of the President and Recording Secretary, and twelve other members to be chosen for that purpose, and also the ex-Presidents of the Society. These officers shall be elected by a majority of the votes at the annual meeting of the Society, and shall, except the twelve members of the Executive Committee, hold their offices for one year, and until the annual meeting of the Executive Committee. The Executive Committee at their annual meeting in December, 1856, shall proceed to elect one half of their number by ballot, to hold for two years, and the other six shall serve only for one year, and at the next annual meeting of the Society, and annually thereafter, six members of the Executive Committee shall be elected to hold for two years, and until the annual meeting of the Executive Committee: *Provided*, that the officers named upon the organization of the Society shall be deemed members and shall remain officers only until others shall be duly elected at the

first annual meeting; and if a vacancy happen it may be filled by appointment of the Executive Committee.

Art. 3. The duties of the President, Vice Presidents, Recording and Corresponding Secretaries, shall be such as usually pertain to their respective offices, and such also as may be prescribed by the order of the Executive Committee, as hereinafter provided.

Art. 4. The Treasurer shall receive and keep an accurate account of all moneys belonging to the Society; he shall pay out its moneys only on the order of the Executive Committee, and at each annual meeting of the Society he shall make a full report of its financial transactions and condition.

Art. 5. The Executive Committee shall determine the place for holding each annual meeting and fair of the Society, and it shall call that meeting and fair at such time as it shall judge best, between the first Monday in September and the third Monday in October, giving at least sixty days public notice thereof.

Art. 6. The Executive Committee shall direct the money appropriations of the Society, and have the control of its property; it shall make the necessary preparations for the annual fair, and issue all proper public notices and circulars in relation thereto, or to the general object of the Society; it shall prepare the necessary by-laws of the Society, and may prescribe such duties to the other officers of the Society as are not inconsistent with the usual business of their respective offices; it shall itself obey the instructions which may be given to it, at the annual meeting of the Society, and at the expiration of its term of service, it shall make a full report of its proceedings. It shall be competent for the Executive Committee, or a majority of them, to appoint a Chairman and Secretary, who may transact all such business as they may be authorized to do by said committee; and said Secretary shall sign, and said Chairman shall countersign all orders on the Treasurer for the payment of any money directed by said committee to be paid for any purpose, and said Secretary shall keep an accurate account of all orders so drawn.

Art. 7. It shall be the duty of the Executive Committee annually to regulate and award premiums on such articles, productions, and improvements, as they may deem best calculated to promote the agricultural and household manufacturing interests of the State, having special

reference to the most economical or profitable mode of competition in raising the crop or stock, or in the fabrication of the article offered: *Provided always*, That before any premium shall be delivered, the person claiming the same, or to whom the same shall be awarded, shall deliver to the President of the Society, in writing, an accurate statement and description, verified in such manner as the Executive Committee may direct, of the character of the soil and the process in preparing it, including the quantity and quality of the manure applied in raising the crop, or the kind and quality of food in feeding the animal, as the case may be; also, the kind and cost of labor employed, and the total expense and total product of the crop, or the increase of value of the animal, mal, with a view of showing accurately the exact resulting profit.

ART. 8. The Executive Committee shall meet annually, at such place as it may itself choose, on or before the second Monday in January, and shall then immediately prepare a report and abstract of the transactions of the Society during the preceding year, embracing such valuable reports from committees, statements of experiments, cultivation and improvements, proceedings of County Societies, correspondence, statistics, and other matter, the publication of which will exhibit the condition of the agricultural interests of Michigan, and a diffused knowledge of which, will, in the judgment of the Committee, add to the productiveness of agricultural and household labor, and therefore promote the general prosperity of the State; and as soon as practicable the Committee shall transmit such report and abstract to the President of the Senate, for the use of the Legislature.

ART. 9. No officer of this Society, except the Recording Secretary, shall receive any compensation for his services. The Executive Committee shall allow the said Secretary such sum for past and future services, as they may deem advisable.

ART. 10. Any person may become a member of the Michigan State Agricultural Society, for one year, by paying one dollar into its treasury. Any officer of the Society may receive and forward to the Treasurer the fee requisite to a membership. By paying ten dollars into the Treasury of the Society, any person may become a life member, and shall be entitled to a certificate of such membership, signed by the President and Recording Secretary.

ART. 11. The several County Agricultural Societies that now exist,

or may hereafter exist in this State, shall be deemed auxiliaries of this State Society, and it shall be the duty of the Executive Committee to invite and receive reports and abstracts of the transactions of the County Societies, to be used in preparing the Annual Report to the Legislature, which is provided for by Article eight of this Constitution.

ART. 12. The President and Recording Secretary of each County Agricultural Society, and all life members of this Society, may attend the annual meeting of the Executive Committee, and freely participate in all discussions which shall occur at such meeting.

ART. 13. This Constitution shall be altered only by a vote of two-thirds of the members present at an annual meeting of the Society.

NAMES OF THE OFFICERS

OF THE

MICHIGAN STATE AGRICULTURAL SOCIETY FOR 1855.

President—ANDREW Y. MOORE, Schoolcraft.

EXECUTIVE COMMITTEE.

John Starkweather, Ypsilanti; Henry Metz, Detroit; Justus Gage, Dowagiac; Charles Dickey, Marshall; John Miller, Tecumseh; John L. Butterfield, Brooklyn; Payne K. Leach, Utica; James Bayley, Big Beaver; S. M. Bartlett, Lasalle; J. W. Dickinson, Hillsdale.

VICE PRESIDENTS.

Name.	*Post Office.*	*County.*
John R. Kellogg,	Allegan,	Allegan.
Hiram Lewis,	Prairieville,	Barry.
F. V. Smith,	Coldwater,	Branch.
Wm. H. Macomber,	Niles,	Berrien.
Jereh. Brown,	Battle Creek,	Calhoun.
E. J. Bonine,	Vandalia,	Cass.
Sam'l Ashman,	Saut Ste. Mary,	Chippeway.
David Sturgis,	De Witt,	Clinton.
Reuben Fitzgerald,	Bellevue,	Eaton.
L. W. Beecher,	Genesee,	Genesee.
Wm. H. Miller,	Moscow,	Hillsdale.
Allen Goodridge,	Lansing,	Ingham.
Cyrus Lovell,	Ionia,	Ionia.
M. Shoemaker,	Jackson,	Jackson.

Chas. E. Stuart,	Kalamazoo,	Kalamazoo.
Henry Hall,	Grand Rapids,	Kent.
A. N. Hart,	Lapeer,	Lapeer.
Walter Wright,	Adrian,	Lenawee.
N. G. Isbell,	Howell,	Livingston.
Mich'l Dousman,	Mackinaw,	Mackinaw.
Ira H. Butterfield,	Utica,	Macomb.
A. G. Bates,	Monroe,	Monroe.
Lyman Fuller,	Troy,	Oakland.
Henry Pennoyer,	Grand Haven,	Ottawa.
H. S. Miller,	Saginaw,	Saginaw.
D. Northrop,	Port Huron,	St. Clair.
George Carman,	Sturgis,	St. Joseph.
M. B. Martin,	Shiawassee,	Shiawassee.
Eusebius Mathers,	Paw Paw,	Van Buren.
John Brewer,	Ypsilanti,	Washtenaw.
J. H. Titus,	Detroit,	Wayne.

CORRESPONDING SECRETARIES.

Name.	*Post Office.*	*County.*
		Allegan.
N. Barlow, Jr.,	Hastings,	Barry.
Thomas Love,	Berrien,	Berrien.
J. B. Crippen,	Coldwater,	Branch.
O. C. Comstock, Jr.,	Marshall,	Calhoun.
John Byrnes,	Summerville,	Cass.
S. McKnight,	Saut Ste. Mary,	Chippeway.
J. F. Turner,	De Witt,	Clinton.
W. R. Martin,	Vermontville,	Eaton.
R. B. Perry,	Grand Blanc,	Genesee.
J. McCollum,	Hillsdale,	Hillsdale.
C. P. Bush,	Lansing,	Ingham.
Fred'k Hall,	Ionia,	Ionia.
J. C. Watkins,	Grass Lake,	Jackson.
F. W. Curtenius,	Kalamazoo,	Kalamazoo.
Henry Seymour,	Grand Rapids,	Kent.
George Clark, Jr.,	Lapeer,	Lapeer.

A. G. Eastman,	Adrian,	Lenawee.
E. F. Burt,	Howell,	Livingston.
L. Y. B. Birchard,	Mackinaw,	Mackinaw.
Dexter Mussy,	Romeo,	Macomb.
E. G. Morton,	Monroe,	Monroe.
A. C. Walker,	Farmington,	Oakland.
Thos. J. White,	Grand Haven,	Ottawa.
W. L. P. Little,	Saginaw,	Saginaw.
Chas. A. Loomis,	St. Clair,	St. Clair.
Mark H. Wakeman,	Nottawa,	St. Joseph.
James Cummins,	Corunna,	Shiawassee.
W. H. Harrison,	Paw Paw,	Van Buren.
L. Davis,	Ann Arbor,	Washtenaw.
Abram Fisher,	Redford,	Wayne.

EXECUTIVE MEETING.

The Annual Meeting of the Executive Committee was held at the Society's Rooms in Detroit, on Tuesday, December 12th, 1854. The meeting convened at 2 o'clock P. M., and was called to order by the President. Present,

The President, A. Y. Moore, of Schoolcraft;

Executive Committee—John Starkweather, Ypsilanti; Justus Gage, Dowagiac; John L. Butterfield, Brooklyn; James Bayley, Big Beaver; S. M. Bartlett, Lasalle; J. W. Dickinson, Hillsdale; P. K. Leach, Utica; Henry Metz, Detroit; Charles Dickey, Marshall.

The meeting being organized, the Secretary read the following report:

To the Executive Committee of the Mich. State Ag'l Soc'y:

Gentlemen—In accordance with the requirements of the Constitution of the Michigan State Agricultural Society, we have assembled for the purpose of examining into the affairs of the Society, and to adopt such measures as you may deem advisable to pursue the ensuing year.

As some of you are now for the first time taking an active and official part in these proceedings, and therefore may not have full knowledge of what has been done in former years, I will take the liberty, in making my report, to refer to the past, as well as the present, and the future.

The State Agricultural Society was organized at Lansing, on the 23d of March, 1849. The Legislature at the same time made an appropriation of $400 for the benefit of the Society for that year, provided the Society should raise a like sum of $400 by subscriptions, or by fees of membership.

More than the requisite sum was raised by the Society, and the appropriation by the State was secured.

The act also provides for a like appropriation, to be paid in a like manner and upon the same conditions, during each year for the term of five years, including the year 1849.

For the first annual Fair the Executive Committee made an appropriation of one thousand dollars for the payment of premiums.

The amount appropriated the second year for the payment of premiums was two thousand dollars.

It has always been the wish of the Executive Committee to extend, each succeeding year, the premium list, as well as to increase the amount of each award. In order to carry out this design the treasury must be supplied with a sufficient amount of money to meet the demand thus occasioned; consequently in January, 1851, the following petition was presented to the Legislature, viz.:

To the Hon. the Legislature of the State of Michigan:

The undersigned respectfully represent, that while it is universally admitted that the farming interest of the State is its great and important interest, it is equally well known that that great source of our wealth, prosperity and happiness as a people, has been more neglected than any other, both by the General and State Governments, and we feel that the time has now come when this evil should be remedied. We therefore request, that your honorable body would appropriate the sum of six hundred dollars annnually for the next three years, in addition to the sum already appropriated, to be placed at the disposal of the State Agricultural Society, under such rules and regulations as may be deemed just and proper, to be distributed as premiums by said Society, for the purpose of encouraging Agriculture, Domestic Manufactures, and the Mechanical Arts connected with Agriculture.

State of Michigan, January, 1851.

The Legislature granted this petition so far as to appropriate, instead of the original sum of $400, the sum of one thousand dollars for the year 1851, and one thousand dollars for the year 1852, upon like conditions as before.

The sum appropriated by the Executive Committee for the payment of premiums for 1851, was $2,000; for 1852, $2,500; for 1853, $3,500; for 1854, $4,500.

At the session of the Legislature for 1853, the Society presented a petition asking the State to appropriate for the benefit of the Society, the sum of $1,000 for 1853, and the sum of $1,000 for 1854. Also, to cause to be printed two thousand copies, at least, of the Annual Reports of the Society for the years 1852 and 1853.

To this petition the Legislature responded by making the appropriations asked for.

I will not now give you a detailed statement of the financial affairs of the Society for each year, but will state that each year before we can replenish our treasury, it is found to be not only empty, but the account has been overdrawn, and the Treasurer has very kindly furnished means to supply the deficiency until money received at the fair comes to his relief.

I have made the above statements for the purpose of showing you what amount of funds we have received each year from the State; also, that the act making the last appropriation has expired, and it will be necessary to petition the Legislature, at its approaching session, for an appropriation that will be nearer adequate to the wants of the Society, and to what it should receive from the fostering hand of the State, than it has hitherto received. Money may, or may not, be the base and spring of our action, but this is certain, that for the want of it our efforts have been, and still are, crippled.

The report of the Financial Committee of the last year premises that after the payment of the debts a balance would be left in the treasury. There were some premiums and other indebtedness unpaid at that time of which that Committee were not aware. All those debts have since been paid.

The amount of drafts drawn upon the Treasurer to pay premiums awarded in money at the sixth annual Fair is $3,070 00.

The amount drawn for current expenses of the year, including the purchase of a tent, which cost $350 00, fitting up the Fair ground, the payment of several bills laid over from the last year, &c., is $4,070 08.

We have on hand bronze medals, that were purchased last year, sufficient to supply the demand for this year. We have a few silver medals, but not as many as are wanting.

A few essays have been presented to compete for the premiums offered. They are now in the hands of the Committee on Essays.

The Committee on Farms will report to you, it being your duty to decide upon the awards to be made upon farms.

There are a few entries of Field Corps, upon the merits of which you will be called upon to decide.

At different times since the organization of this Society, the subject of the establishment of an Agricultural School in connection with an Experimental Farm has occupied the attention of the Executive Committee, and they have made some effort to procure the establishment of such an institution, but as yet without success.

The Executive Committee, at its annual meeting in December, 1852, after some discussion of the subject of an Agricultural School, adopted a memorial to be presented to the Legislature, asking for the passage of a law for the establishment by the State of an Agricultural School in connection with an Experimental Farm.

This memorial was presented to the Legislature at its session in 1853, and by it was favorably received; but from some cause, perhaps better known to others than to myself, it failed to receive that notice to which the cause is entitled, and which it demands.

It is known to all of you that the elements of scientific Agriculture are taught at the Normal School, at Ypsilanti. This will enable those who are now students, and intend to become teachers, to perform their duty to their pupils, by instilling into their minds a taste and love for scientific agricultural knowledge, and place them at least one step in advance of those who toil in the field from year to year, understanding nothing beyond the mechanical process of farming, fearing to deviate from the old rule, not knowing to what the deviation may lead them, whether to a harder or an easier task, to riches or to poverty.

On the 14th of March, 1853, a circular was issued by the Regents of the University, announcing that there would be given a free course of lectures in the University of Michigan upon Agricultural Science, commencing the 27th day of April and closing the 28th day of June. The Rev. Charles Fox was announced as the lecturer upon Theoretical and Practical Agriculture. Other lectures to be given by Prof. S. H. Douglass and Prof. A. Sager.

This course of lectures was given in accordance with the above announcement.

Last autumn Mr. Fox moved to Ann Arbor and lectured during the

winter. He was afterward appointed Professor of Theoretical and Practical Agriculture, and was expecting to continue his labors at the University, in that department for which he was so eminently fitted, and in the prosecution of which he had for many years, with unwearied assiduity labored in the field by day, and in the study by night; I mean the department of Agriculture, both scientific and practical. But, just as we were beginning to know him, and to feel the influence that his talents, industry, and energy were exerting in behalf of the agricultural interests of Michigan, we looked and he was not, for death, with but a slight warning, claimed and bore him from us, that he might rest from his labors and receive his reward.

It is natural that since our friend has been taken from us we should ask, by whom will his place be filled. At present I cannot answer. The President of the University informs me that the lectures will be continued, but by whom, and the plan of the course I have not been advised.

That agricultural science must be taught, and that an experimental and model farm must be established in Michigan, appears to be a fixed fact; but a difficulty in the way, and I apprehend it is the principal, if not the only one, is the location. With regard to location, we hear it said by some that an Agricultural School should be a branch, or a department of the University; others say the Normal School is the proper place for it; while others say it should not be connected with any other institution, but should be by itself, independent of all others.

The Constitution of the State says the "Legislature shall provide for an Agricultural School, when practicable."

We say it is now practicable, now is the time for the Legislature to act upon this important subject, and it is for you to send in your petitions, and see that they are acted upon, and they are granted. Then the farmer, as well as the artisan and the professional man, will have the advantage of science to assist him in his occupation. This object must be attained, be the location where it may. The importance of this subject has caused me to occupy much of your time in calling your attention to it.

It has been my constant endeavor to increase the library belonging to the Society, but without means its progress must necessarily be slow. Last spring I forwarded to Europe, under the direction of the Smith-

sonian Institution, fifty sets of our Transactions, for Exchange with European Societies. I have, as yet, received no returns.

I have also tried to make a collection of specimens of grasses, seeds, &c., but for want of time I have been unable to go out and make the collection, and gentlemen who have promised to forward to me specimens, have failed to fulfill their promises in this regard.

It was my intention to publish a quarterly journal for gratuitous distribution among the members of the Society, but in this I have been disappointed, as it could not be done without incurring a debt that the funds of the Society were insufficient to meet. I have, therefore, issued but one number this year.

It has always been the desire of exhibitors in the Horticultural Department at our fairs, that their contributions should be exhibited under a tent, instead of a rough board building. This desire has been acceded to, and a tent for the purpose has been purchased at a cost of three hundred and fifty dollars.

There appears to be a general desire among the County Agricultural Societies that there should be a general act of the Legislature under which County Agricultural Societies may become incorporated. They wish the Executive Committee of the State Society to take the necessary steps for procuring the passage of such an act.

I would call your attention for a moment to the United States Agricultural Society.

That Society was organized three or four years since, and holds its annual meetings in Washington, D. C., on the last Wednesday of February in each year. The last year Michigan was represented in that body by Prof. Chas. Fox, who delivered before the Society a very interesting address, which will be published in their journal.

If it is the wish of this Society to be represented at the next annual meeting of the U. S. Agricultural Society, it will be necessary for you to appoint three delegates for that purpose.

All of which is respectfully submitted.

The report of the Secretary was adopted.

A motion was made that the Chair proceed to appoint the regular Committees, whereupon the following committees were appointed.

Committee on Treasurer's Account—Messrs. Gage, Butterfield and Dickinson.

Committee on Rules and Regulations—Messrs. Bartlett, Starkweather and Bayley.

Committee on Premium List—Messrs. Starkweather, Leach and Metz.

Committee on Field Crops—Messrs. Butterfield, Bayley and Leach.

Committee on Awards to County Societies—Messrs. Dickinson, Starkweather and Metz.

Business Committee—Messrs. Metz, Bayley and Leach.

Committee on Farms—Messrs. Gage, Dickinson and Starkweather.

On motion of Mr. Bartlett,

Resolved, That the Seventh Annual Fair of the Society be held on Tuesday, Wednesday, Thursday and Friday, the 2d, 3d, 4th and 5th days of October, 1855; also, that it be held at Detroit, provided the citizens of that place secure to the Society, by the first day of June, the sum of $1,500 for the purpose of fitting up the grounds; if not, then at such place on the line of either of the railroads in the State as will raise the largest sum.

On motion of Mr. Gage,

Resolved, That the sum of five thousand dollars be appropriated for the payment of premiums to be awarded at the 7th Annual Fair.

Mr. J. N. Chandler, of Adrian, presented a communication relative to the cause and prevention of the Potato rot, which was read to the Committee.

On motion of Mr. Starkweather,

Resolved, That the communication presented by Mr. Chandler be laid on the table for the present.

On motion of Mr. Gage,

Resolved, That a committee be appointed to draft a memorial to the Legislature, praying that honorable body to appropriate a sum of money to aid in supporting this Society for the two ensuing years. Also that the same committee be instructed to draft another petition to that honorable body, praying them to take in consideration the propriety of appropriating a sum of money sufficient for the establishment of an Agricultural School, with the addition of an experimental farm, where experimental and theoretical agriculture will be taught on a scale equal to our best colleges.

Committee to draft petitions in accordance with the above resolution; Messrs. Gage, Starkweather and Bartlett.

Committee to make arrangements with Rail Roads, Plank Roads, and Steam Boats for the transportation of passengers, stock, &c., to and from the Fair; Messrs. Butterfield, Bartlett, Holmes.

At ½ past 5 P. M. adjourned to ½ past 6 P. M.

At ½ past 6 P. M. the Committee met.

Mr. Gage offered the following:

Resolved, That an Agricultural School should be connected with the Normal School at Ypsilanti.

Mr. Gage spoke at some length in favor of the resolution.

Messrs. Starkweather, Bartlett, Bayley, Butterfield, Cone and Dickinson opposed the resolution, and spoke in favor of the establishment of an institution that should be separate and distinct from any other.

Mr. Bartlett offered the following as a substitute for the resolution of Mr. Gage:

Resolved, That an Agricultural College should be separate from any other institution.

Whereupon, Mr. Gage withdrew his resolution and advocated the passage of the substitute.

The substitute offered by Mr. Bartlett was adopted.

At 9 o'clock P. M., adjourned to ½ past 8 A. M. of the 13th.

WEDNESDAY, DEC. 13.

The Committee met at 9 o'clock, A. M.

The Secretary read several letters from Corresponding Secretaries relative to some alterations deemed advisable to be made in the premium list, also recommending persons suitable to be placed upon the viewing committees at the next fair.

Mr. E. C. Roberts, of Salem, Washtenaw county, presented, verbally, his theory of the cause and cure of the Potato rot.

A communication from Edward Mason, of Greenfield, upon the subject of the Potato rot was then read, and on motion, the subject of Potato rot was referred to a Committee consisting of Messrs. Dickinson, Gage and Bartlett.

At 12 M. adjourned to 2 o'clock P. M.

At 2 o'clock P. M. the Committee assembled and the several committees proceeded to make out their reports.

Hon. M. Shoemaker, delegate from the Jackson County Agricultural Society, made some very interesting remarks in relation to the establishment of an Agricultural School and Experimental Farm.

Adjourned to 7 P. M.

At 7 o'clock P. M. the committee met.

The evening was occupied in the reading of statements of competitors for the premiums on farms.

Adjourned to 9 A. M. of the 14th.

THURSDAY, DEC. 14.

The Committee met at 9 A. M.

Mr. Bartlett, from the committe on farms, read a report recommending the following awards:

The first premium not awarded, no farm being found worthy.

To Justus Gage, Dowagiac, Cass Co., the 2d premium,.....$30 00
To H. B. Chapman, Reading, Hillsdale Co., 3d prem.,..... 20 00
To J. S. Tibbitts, Plymouth, Wayne Co., 4th prem.,..... 10 00

The report was accepted, and the awards confirmed.

The committee appointed to make arrangements with rail and other roads for the transport of passengers and stock, and all articles intended for exhibition at the next annual fair, report that they have made satisfactory arrangements with the Michigan Central, the Detroit and Pontiac, and the Oakland and Ottawa Railroads, for that purpose.

The committee on Premium List made a report, which, after some amendment, was adopted.

The committee to draw up a petition to the Legislature for aid in support of the Society, reported a petition asking the Legislature to appropriate the sum of two thousand dollars to be distributed as premiums for the year 1855, and a like amount for the year 1856. The report was accepted and adopted.

The committee to whom was referred the claims of competitors for the premium offered for sufficient evidence of having the cause and a cure for the potato rot, made a report which elicited considerable discussion, during which the committee adjourned to half-past 1 P. M.

At 2 P. M. the committee was called to order.

The committee on Rules and Regulations presented their report, which, after a few amendments, was adopted.

On motion of Mr. Dickinson,

Resolved, That any member of this Society who shall, by improper means, procure the award of a premium on an animal or article not entitled thereto, shall be deprived of the privileges and benefits of this Society thereafter.

On motion of Mr. Bayley,

Resolved, That the Secretary be and he is hereby directed to request Mr. E. M. Crippen to return to the Treasurer of this Society the amount received by him as premiums awarded at the last State fair, on Devon Cattle, in competition with foreign Devon Cattle. There were no foreign Devon Cattle on the ground, therefore the premiums were awarded in violation of a rule of the Society.

At half-past 2 P. M., the report of the committee upon the subject of the potato rot was again taken up and further discussed, and after one or two amendments it was adopted.

The report of the committee on the potato rot was published in full in the sixth volume of Transactions.

A motion was made to proceed to appoint the various awarding committees for the next fair.

Adjourned to 7 o'clock P. M.

At 7 o'clock P. M. the committee met and proceeded with the appointment of viewing committees.

At 9 P. M. adjourned to 9 o'clock A. M. of the 15th.

FRIDAY, Dec. 15.

Committee met at 9 o'clock A. M.

Mr. E. C. Roberts presented a written communication giving his method of cultivating the potato, as stated by him verbally before the committee, and which, at their request, he reduced to writing.

The committee on Field Crops presented their report, which was adopted.

The committee on County Agricultural Societies made their report, awarding the premium of twenty copies of the Transactions to the Hillsdale County Society.

A claim having been presented for injuries sustained in consequence of goods being damaged by rain at the late State Fair, the following was offered by Mr. Metz:

Resolved, That the Agricultural Society does not hold itself respon-

sible for injury caused to articles by the elements while on exhibition at their Fairs.

Adopted.

Adjourned to 2 o'clock P. M.

At 2 o'clock P. M. the committee met.

Mr. Butterfield, from the committee on Treasurer's account, made a verbal report, not having had time to make out a full written statement, and asked for an extension of time, in order to make out a full report. Granted.

On motion of Mr. Bartlett, it was

Resolved, That Cassius M. Clay be invited to deliver the annual address before the Society at its fair in 1855.

The committee on Premium List presented their report, which, after some discussion and amendment, was adopted.

Mr. Gage, from the committee to report a memorial to be presented to the Legislature on the subject of an Agricultural School, reported a memorial praying that body to appropriate a sum of money sufficient to purchase a body of land for an experimental farm, and for the erection of suitable buildings thereon for an Agricultural School, placing it upon a basis of its own, separate from any other institution of learning, and for the endowment of the same in such manner as shall place it upon an equality with the best Colleges of the State.

The memorial was accepted and adopted.

A communication was read from Mr. Aaron Palmer, of Brockport, N. Y., a manufacturer of reaping machines, to the effect that he would furnish a reaping machine to be owned and controlled by the Society, (if a respectable number of other manufacturers would do the same,) provided that the Society appoint a committee of twelve practical farmers to take the machines and operate them through the entire wheat harvest, and report under oath which is the best, which the second best, and so on. That a full report of the trial be published by the committee in all the agricultural papers in the Union. That the reapers, at the end of the trial, be sold to pay the expenses attending the trial, and the balance of the money, if any, to go to the treasury of the Society.

Mr. Metz offered the following:

Resolved, That the offer of Mr. Palmer be accepted, and that the Secretary be instructed to correspond with manufacturers of reaping

machinery, stating to them the proposition of Mr. Palmer, and asking them to notify the Society if they concur in the proposition, and if they will furnish a machine of their own make upon the same terms. The committee will give them a fair trial, provided not less than four be presented.

Adopted.

On motion of Mr. Gage,

Resolved, That Mr. Bartlett be a committee to draft a bill to be presented to the next Legislature, for the establishment of an Agricultural School, in accordance with the views of this committee, as by them already expressed.

On motion,

Resolved, That Messrs. Bartlett, Gage and Starkweather be a committee to wait upon the Legislature for the purpose of presenting the memorials of this Society, and urging the passage of bills in accordance therewith.

The following gentlemen were appointed as delegates from this Society to attend the annual meeting of the United States Agricultural Society, to be held in February, 1855:

A. Y. Moore, Schoolcraft, Kalamazoo Co.; J. C. Holmes, Detroit, and D. A. Noble, Monroe.

On motion of Mr. Dickinson, it was

Resolved, That the thanks of this Committee be tendered to our President, A. Y. Moore, Esq., for his kindness and the proper and punctual discharge of his duties during the present session.

On motion of Mr. Starkweather, it was

Resolved, That the Executive Committee of this Society tender their thanks to Mr. Holmes for the faithful and efficient manner in which he has discharged the duties of his office for the past year.

The Committee adjourned *sine die*.

J. C. HOLMES,
Secretary.

EXECUTIVE MEETING.

A meeting of the Executive Committee was held at the Society's rooms on Monday evening, October 1st, 1855.

Present, Messrs. Starkweather, Miller, Metz, Bayley, Bartlett, Dickinson and the Secretary.

The President being absent, Mr. J. Starkweather was called to the Chair.

The following committees were appointed to have supervision of the several departments during the Fair:

Horse Department—Dickey and Bayley.

Cattle " Starkweather and Miller.

Sheep, Swine and Poultry Department—Dickinson.

Domestic Manufacturers—Metz.

Mechanics' Hall—Gage.

Floral Hall—Bartlett.

A circular from Lieut. Maury relative to Meteorology was read by the Secretary, and on motion,

Resolved, That Messrs. Gage and Holmes be a committee to draft a memorial to Congress in favor of adopting by the General Government, the plan of Lieut. Maury respecting Meteorology for farmers, and circulate it through the State for signatures.

A proposition and programme for a horse race at the Hamtramck course under the auspices of the Society was read, and after some discussion the whole matter was laid on the table.

On motion of Mr. Starkweather,

Resolved, That Messrs. Bartlett and Holmes be refunded the expenses incurred and paid by them while attending to business of the Society at Lansing in January and February last.

Adjourned to meet on the Fair Ground, on Tuesday the 2d inst., at 3 o'clock P. M.

THE SEVENTH ANNUAL FAIR.

The Society's Seventh Annual Fair was held at Detroit, on the Jones and Cass farms, between the Chicago and Grand River roads, and west of Third Street, on the second, third, fourth and fifth days of October, 1855. The weather was mild and very pleasant excepting the last day, at which time the rain fell heavily and steadily all day.

The exhibition was extensive, and superior to former ones in nearly every particular.

Entries of stock and articles were made during Monday and Tuesday, the 1st and 2d days of October.

At 3 o'clock P. M. a meeting was called for the purpose of filling vacancies in committees, and for other purposes.

On motion of Mr. Bartlett, the motion relative to a Horse race upon the Hamtramck course, which was laid upon the table last evening, was taken up, and by a full vote of the board, with one exception, the proposition was rejected.

On motion,

Resolved, That the filling of vacancies in committees be postponed until to-morrow morning, at 8 o'clock.

The Committee adjourned to 8 o'clock to-morrow morning.

On Wednesday the 3d the Committee met at 8 o'clock A. M., and filled the vacancies that occurred in the viewing committees.

It having been stated to the Executive Committee that considerable stock had been delayed upon the Michigan Southern Rail Road, and unable to get to the Fair in season, it was, on motion,

Resolved, That the examination of stock be delayed until the morning of the 4th.

On the morning of the 4th, the several committees proceeded to the examination of stock and articles on exhibition.

At 3 o'clock P. M., the annual address was delivered by the Hon. Henry Broom, of Philadelphia, Pa.

On the 5th it commenced raining early in the morning, and continued during the 5th and 6th.

The reading of the reports of the viewing committees was commenced at 11 o'clock A. M. of the 5th, at the conclusion of which the election of officers took place. The following officers were elected for 1856:

President—M. SHOEMAKER, Jackson, Jackson county.

Treasurer—BENJAMIN FOLLETT, Ypsilanti, Washtenaw county.

Secretary—J. C. HOLMES, Detroit, Wayne county.

Executive Committee—F. W. Backus, Detroit, Wayne county; Horace Welch, Ypsilanti, Washtenaw county; A. N. Hart, Lapeer, Lapeer county; Edward G. Morton, Monroe, Monroe county; C. A. Green, Troy, Oakland county; John Miller, Tecumseh, Lenawee county; J. B. Crippen, Coldwater, Branch county; Justus Gage, Dowagiac, Cass county; J. K. Kinman, Jonesville, Hillsdale county; Wm. L. P. Little, Saginaw, Saginaw county; A. Y. Moore, Schoolcraft, Kalamazoo county; W. S. H. Welton, Grand Rapids, Kent county.

On motion,

Resolved, That the Constitution be amended by striking out from the fifth line of the second section the word "ten," and insert the word "twelve."

On motion of John Starkweather,

Resolved, That the Constitution be amended by striking out from the third and fourth lines of the second section the words "a Corresponding Secretary in each county in the State," and insert the words "the Corresponding Secretary of each County Agricultural Society shall be the Corresponding Secretary of the State Society for their county; and any county not having an organized Agricultural Society shall not be entitled to a Corresponding Secretary of the State Society."

Resolved, That the Constitution be amended by inserting in the second section the following words, viz.: The Executive Committee at their annual meeting shall proceed to elect one half of their number by ballot to hold for two years, and the other six shall serve only for

one year, and at the next annual meeting of the Society, and annually thereafter, six members of the Executive Committee shall be elected to hold for two years.

Section 2, as amended, will read as follows:

Section 2. The officers of this Society shall be a President, one Vice President in each organized county in the State, a Recording Secretary, and a Treasurer; and the Corresponding Secretary of each organized County Agricultural Society shall be the Corresponding Secretary of this Society for their county; and any county not having an organized County Agricultural Society shall not be entitled to a Corresponding Secretary of the State Society; an Executive Committee consisting of the President and Recording Secretary, and twelve other members to be chosen for that purpose, and also the ex-Presidents of the Society. These officers shall be elected by a majority of the votes at the Annual meeting of the Society, and shall, except the twelve members of the Executive Committee, hold their officers for one year, and until the annual meeting of the Executive Committee. The Executive Committee at their annual meeting in December, 1856, shall proceed to elect one half of their number by ballot, to hold for two years, and the other six shall serve only for one year, and at the next annual meeting of the Society, and annually thereafter, six members of the Executive Committee shall be elected to hold for two years, and until the annual meeting of the Executive Committee.

On motion,

Resolved, That the thanks of the Society be tendered to Hon. Jacob Broom for his able and interesting address before the Society, and request a copy for publication.

Resolved, That the thanks of the Society be tendered to the President and the other officers of the Society, for their labors and their devotion to the interests of the Society during the past year.

Resolved, That the thanks of the Society be tendered to Mrs. Jones and Gen. Cass, for the free use of their lands upon which the Fair of the Society is held.

J. C. HOLMES,
Secretary.

LIST OF ENTRIES

AT THE SEVENTH ANNUAL FAIR OF THE MICHIGAN STATE AGRICULTURAL SOCIETY, HELD AT DETROIT THE 2D, 3D, 4TH AND 5TH DAYS OF OCTOBER, 1855.

CATTLE.

SHORT HORNS.—BULLS.

D. M. Uhl, Ypsilanti, bull 1 year old.
Crippen & Freeman, Coldwater, bull 1 year old.
G. V. N. Lothrop, Detroit, bull 1 year old.
John Baird, Pontiac, bull 3 years old.
John Starkweather, Ypsilanti, bull 2 years old.
" " " 2 "
F. W. Backus, Detroit, bull 6 years old.
M. L. Brooks, Northville, bull 1 year old.
A. S. & M. L. Brooks, Northville, bull 7 years old.
C. Fuller & Co., Plymouth, bull 5 years old.
Thos. Salmonica, Amherstburg, C. W., bull 2 years old.
D. F. Dwight, Detroit, bull 2 years old.
M. & J. Shoemaker, Jackson, bull 4 years old.
J. Dodge, Newlyme, Ohio, bull 5 years old.
S. W. Dexter, Dexter, bull 9 years old.
James Flower, Armada, bull 1 year old.

COWS.

Silas Sly, Plymouth,		Cow,	7	years old.
do	do	"	5	do
do	do	"	6	do
C. A. Merritt, Livonia,		"	6	do

F. E. Eldred, Detroit,	Cow	7	years old.
James Flower, Armada,	"	8	do
do do	"	4	do
D. M. Uhl, Ypsilanti,	"	12	do
do do	"	4	do
J. W. Dickinson, Hillsdale,	"	4	do
do do	"	4	do
do do	"	3	do
Crippen & Freeman, Coldwater,	"	7	do
do do	"	8	do
F. W. Backus, Detroit,	"	6	do
M. L. Brooks, Northville,	"	6	do
do do	"	4	do
do do	"	4	do
Leonard Lee, Armada,	"	4	do
do do	"	3	do
S. A. Randall, Brooklyn,	"	4	do
S. & G. W. Camp, Portage Lake,	"	8	do
do do	"	6	do
do do	"	5	do
do do	"	3	do
Gilbert & Matthews, Avon, N. Y.,	"	6	do
do do	"	5	do
do do	"	4	do
do do	"	3	do
do do	"	4	do
do do	"	5	do

HEIFERS.

S. W. Dexter, Dexter, heifer 1 year old.
" " " 1 "
Silas Sly, Plymouth, heifer 1 "
" " " 1 "
D. M. Uhl, Ypsilanti, heifer 2 "
J. W. Dickinson, Hillsdale, heifer 1 year old.
" " " 1 "
Crippen & Freeman, Coldwater, heifer 1 year old.

Asa Williams, Lima, heifer 2 years old.
" " " 1 "
C. A. Jeffries, Dexter, heifer 2 years old.
John Starkweather, Ypsilanti, heifer 1 year old.
C. A. Jeffries, Dexter, " 1 "
M. L. Brooks, Northville, " 2 "
" " " 2 "
" " " 3 "
Leonard Lee, Armada, " 1 "
S. A. Randall, Brooklyn, " 2 "
Gilbert & Matthews, Avon, N. Y., heifer 2 years old.
" " " 2 "
" " " 2 "
" " " 2 "
" " " 2 "
" " " 1 "
" " " 1 "
" " " 1 "
" " " 1 "
" " " 1 "

BULL CALVES.

J. Starkweather, Ypsilanti, Bull Calf 6 months old.
Silas Sly, Plymouth, " 4 "
F. E. Eldred, Detroit, " 7 "
James Flower, Armada, " 9 "
J. W. Dickinson, Hillsdale, " 5 "
Crippen & Freeman, Coldwater, " 23 days old.
C. A. Jeffries, Dexter, " 6 months old.
Leonard Lee, Armada, " 7 "
do do " 2 "
S. A. Randall, Brooklyn, " 11 "
S. & G. W. Camp, Portage Lake, " 11 "
Gilbert & Matthews, Avon, N. Y., " 4 "

HEIFER CALVES.

Silas Sly, Plymouth, Heifer Calf 6 months old.
D. M. Uhl, Ypsilanti, " 2 "

J. W. Dickinson, Hillsdale,	Heifer calf	10	weeks old.
Gilbert & Matthews, Avon, N. Y.,	"	5	months old.
do do	"	4	"
do do	"	4	"
do do	"	1	"
do do	"	3	weeks old.

DEVONS.—BULLS.

H. Eggleston, Litchfield, bull 3 years old.
A. Patchin, Nankin, bull 4 years old.
S. Whitmarsh, Ypsilanti, bull 4 years old.
J. W. Dickinson, Hillsdale, bull 1 year old.
Hiram Mason, Hamburg, bull 2 years old.
C. H. Williams, Coldwater, bull 1 year old.
Gideon Stoddard, Litchfield, bull 1 year old.
M. & J. P. Shoemaker, Jackson, bull 3 years old.
W. H. Miller, Moscow, bull 1 year old.
" " " 1 "
A. E. Eldred, Napoleon, bull 5 years old.

COWS.

Hiram Mason, Hamburg,	Cow	3	years old.
C. H. Williams, Coldwater,	"	4	"
Harvey Eggleston, Litchfield,	"	3	"
do do	"	3	"
F. M. Foster, Jackson,	"	6	"
M. & J. P. Shoemaker, Jackson,	"	7	"
W. H. Miller, Moscow,	"	6	"
do do	"	4	"
do do	"	3	"
O. W. & G. P. Bennett, Jackson,	"	7	"
do do	"	3	"
F. W. Backus, Detroit,	"	5	"

HEIFERS.

J. W. Dickinson, Hillsdale,	Heifer	2	years old.
do do	"	2	"
do do	"	2	"

Hiram Mason, Hamburg,	Heifer	2	years old.
H. Eggleston, Litchfield,	"	2	"
M. & J. P. Shoemaker, Jackson,	"	2	"
W. H. Miller, Moscow,	"	2	"
O. W. & G. P. Bennett, Jackson,	"	1	"

BULL CALVES.

J. W. Dickinson, Hillsdale,	Bull	Calf.	
Hiram Mason, Hamburg,	"	6	months old.
C. H. Williams, Coldwater,	"	3	"
H. Eggleston, Litchfield,	"	4	"
M. & J. P. Shoemaker, Jackson,	"	9	"
W. H. Miller, Moscow,	"	3	"
do do	"	3½	"
O. W. & G. P. Bennett, Jackson,	"	11	weeks old.

HEIFER CALVES.

J. W. Dickinson, Hillsdale,	Heifer	Calf.	
Hiram Mason, Hamburg,	"	5	months old.
F. M. Foster, Jackson,	"	7	"
Wm. H. Miller Moscow,	"	2	"
do do	"	2	"
do do	"	2½	"
O. W. & G. P. Bennett, Jackson,	"	10	weeks old.

W. White, Birmingham, Hereford Bull, 8 years old.
O. H. Dewar, Sandwich, 1 Ayrshire Bull Calf 5 months old.

CROSS OF BLOOD.—BULLS.

Edward Turner, Detroit,	Bull	2	years old.
M. Fisher, do	"	15	months old.
Wm. Congdon, Plymouth,	"	5	years old.
Wm. H. Lester, Utica,	"	1	"
Wm. Gass, Macomb,	"	5	"
B. D. Rodgers, Vienna,	"	2	"
Robert Witmore, Chatham, C. W.,	"	2	"

COWS.

M. Fisher, Detroit,	Cow	8	years old.

J. B. Arms, Dexter, Cow 6 years old.
do do " 4 "
C. A. Jeffries, Dexter, " 4 "
Wm. H. Lester, Utica, " 3 "
Wm. Gass, Macomb, " 6 "
do do " 4 "
B. D. Rodgers, Vienna, " 3 "
do do " 3 "
do do " 3 "
John C. Williams, Greenfield, " 8 "
D. C. Blair, Tipton, " 6 "
do do " 3 "
O. Hampton, Albion, " 3 "

HEIFERS.

J. B. Arms, Dexter, heifer 14 months old.
John Starkweather, Ypsilanti, heifer 1 year old.
C. A. Jeffries, Dexter, " 2 "
" " " 1 "
Wm. Gass, Macomb, " 2 "

BULL CALVES.

J. B. Arms, Dexter, bull calf 5 months old.
Wm. H. Lester, Utica, " 6 "
Wm. Gass, Macomb, " 5 "
" " " 3 "
Wm. H. Miller, Moscow, bull calf 5 "
O. W. & G. P. Bennett, Jackson, bull calf 4 months old.
D. C. Blair, Tipton, " 7 "
O. Hampton, Albion, " 6 "

HEIFER CALVES.

F. W. Backus, Detroit, heifer calf, 5 months old.

CROSS OF BLOOD AND NATIVE.—BULLS.

John Thomas, Farmington, Bull 2 years old.
Leonard Lee, Armada, " 3 "
Norton Lapham, Farmington, " 3 "
John Common, Roseville, " 15 months.

Calvin A. Green, Troy,	Bull	2	years old.
Thomas Clark, Lapeer,	"	3	"
George Clark, Jr., Lapeer,	"	2	"
John Price, Romeo,	"	4	"

COWS.

Edward Turner, Detroit,	Cow	4	years old.
D. M. Uhl, Ypsilanti,	"	6	"
do do	"	5	"
do do	"	3	"
J. W. Dickinson, Hillsdale,	"	5	"
C. W. Green, Troy,	"	4	"
Leonard Lee, Armada,	"	3	"
Nathan Davis, Troy,	"	10	"
J. S. Tibbitts, Plymouth,	"	4	"
do do	"	3	"
S. & G. W. Camp, Portage Lake,	"	3	"
do do	"	3	"
do do	"	3	"
Thos. B. Rowen, Detroit,	"	7	"
Gilbert & Matthews, Avon, N. Y.,	"	8	"
do do	"	7	"
do do	"	5	"

HEIFERS.

Silas Sly, Plymouth,	Heifer	1	year old.
D. M. Uhl, Ypsilanti,	"	2	"
J. W. Dickinson, Hillsdale,	"	2	"
do do	"	1	"
do do	"	1	"
John Starkweather, Ypsilanti,	"	1	"
Thomas Hopson, Detroit,	"	18	months old.
Nathan Davis, Troy,	"	2	years old.
J. L. Stout, do	"	1	"
J. S. Tibbitts, Plymouth,	"	2	"
S. A. Randall, Brooklyn,	"	2	"
S. & G. W. Camp, Portage Lake,	"	2	"

BULL CALVES.

Chas. Williams, Dexter,	Bull Calf	6	months	old.
Wm. H. Miller, Moscow,	"	6	"	
O. W. & G. P. Bennett, Jackson,	"	5	"	
do do	"	4	"	
J. L. Stout, Troy,	"	5	"	

HEIFER CALVES.

C. W. Green, Troy,	Heifer Calf	9	months	old.
John Starkweather, Ypsilanti,	"	6	"	
John C. Williams, Detroit,	"	4	"	
O. W. & G. P. Bennett, Jackson,	"	5	"	
Nathan Davis, Troy,	"	5	"	
J. S. Tibbitts, Plymouth,	"	7	"	
M. H. Webster, Detroit,	"	3	"	

NATIVE.—BULLS.

Calvin A. Green, Troy, Bull 2 years old.

COWS.

Silas Sly, Plymouth,	Cow	7	years	old.
J. H. Benton, Clinton,	"	3	"	
Gideon Stoddard, Litchfield,	"	–	–	
Thomas Hopson, Hamtramck,	"	6	"	
David Thompson, Detroit,	"	6	"	
do do	"	5	"	
Wm. H. Miller, Moscow,	"	6	"	
O. W. & G. P. Bennett, Jackson,	"	3	"	
D. F. Dwight, Detroit,	"	5	"	
Asa Parish, Coldwater,	"	23	"	
S. S. Sherman, Farmington,	"	7	"	
James Monier, Greenfield,	"	7	"	
do do	"	5	"	

CALVES.

J. H. Benton, Clinton, Bull Calf 3 months old.

S. S. Sherman, Farmington, Heifer Calf 6 weeks old.

WORKING OXEN AND STEERS.

R. D. Reed, Wayne, 1 yoke oxen 5 years old.
C. W. Green, Farmington, " 6 "
do do " 7 "
Benj. P. Wixom, do " 8 "
Henry Mason, do " 7 "
Calvin A Green, Troy, " 8 "
do do " 6 "
C. A. Green, for Oakland County, 5 " – –
Wm. N. Burnett, Big Beaver, 1 " 7 "
do do " 4 "
C. W. Green, Farmington, for Oakland County, 5 yoke oxen.
John Thomas, do 1 yoke oxen 7 years old.
do do 1 yoke steers 3 "
David M. Uhl, Ypsilanti, " 3 "
do do " 3 "
do do " 2 "
do do " 2 "
J. W. Dickinson, Hillsdale, " 1 "
J. B. Arms, Dexter, " 1 "
Caleb Sprague, Farmington, " 2 "
A. D. Power, do " 14 months old.
John Starkweather, Ypsilanti, " 3 years old.
Wm. H. Lester, Utica, " 2 "
D. G. Brown, Nankin, " 4 "
Clement Pearsall, Big Beaver, " 4 "
S. & G. W. Camp, Portage Lake, " 3 "
do do " 3 "
O. F. Colegrove, Norville, " 1 "
Asa Parish, Coldwater, " 5 months old.
James Monier, Greenfield, " 2 years old.
C. W. Green, Farmington, 2 yoke oxen for plowing.
Wm. Burnet, Big Beaver, 3 " "

FAT CATTLE.

Silas Sly, Plymouth, 1 fat steer 3 years old, stall fed.
Thomas Hall, Greenfield, 1 pair steers 5 years old, grass fed.

Robert Rome, Ann Arbor 1 pair fat oxen 7 years old.
S. & G. W. Camp, Portage Lake, 1 fat steer 4 years old.
Silas Sly, Plymouth, 1 fat cow 7 years old, grass fed.

HORSES.

STALLIONS.

N. C. Merritt, Eaton Rapids, Stallion 5 years old, for all work.
John W. Strong, Detroit, " 8 " "
H. C. Kibbee, do Jackson Black Hawk, " 2 " "
L. T. Macquivy, do Morgan Duroc, " 9 " "
J. H. Canniff, Hamtramck, "Sam Lover," " 1 " blood.
Thos. D. Kiley, Erin, " 4 " for all work.
James Dubois, Hamtramck, " 2 " "
John Campau, Detroit, " 3 " "
Joseph Billings, Hamtramck, " 8 " "
George McStay, Detroit, " 5 " "
R. W. Baird, do "Phantom," " 8 " blood.
Smith Randall, Canton, " 4 " for draught.
F. E. Eldred, Detroit, "Jackson," " 15 " for all work.
Henry Stonehouse, Bayfield, C. W., " 5 " "
Joseph H. Vervais, Sandwich, C. W., "Constant," stallion 6 years old, for all work.
A. Brink, Nankin, stallion 8 years old, for all work.
Isaac Fryer, Canton, " 7 " for draught.
J. W. Dickinson, Hillsdale, " 6 " "
D. K. Emmons, Grand Rapids, " 14 " for all work.
do do " 2 " "
E. W. Rising, Richfield, " 5 " for draught.
Smith & Crippen, Coldwater, " 5 " for all work.
J. B. Arms, Dexter, " 6 " for draught.
Gardner Conn, Bingham, " 5 " for all work.
C. W. Green, Farmington, " 11 " blood.
do do " 2 " "
do do " 4 months old, "
John Thomas, do " 5 " for all work.

John Hamilton, Flint,	Stallion	4	years old,	blood.
C. A. Jeffries, Dexter, "Bob Letcher,"	"	17	"	"
do do	"	3	"	for all work.
John Ballard, Grosse Isle,	"	5	"	"
R. Burt, Nankin,	"	6	"	"
Wm. H. Chappell, Detroit,	"	5	"	blood.
Harmon Benson, Hindsburgh, Vt.,	"	5	"	for all work.
Harmon A. Ray, do	"	12	"	"
do do	"	10	"	"
S. H. Cleveland, Milo, N. Y.,	"	4	"	"
A. Wales, Detroit,	"	8	"	"
Abraham Fisher, Redford,	"	2	"	"
Edmund Bennett, Nankin,	"	3	"	"
Conrad Walton, Rochester,	"	3	"	"
W. White, Birmingham,	"	1	"	"
T. F. Gerls, Troy,	"	5	"	for draught.
H. Douglass, do	"	2	"	for all work.
James Davidson, Hamtramck,	"	1	"	for draught.
Wm. Johnston, Marshall,	"	7	"	for all work.
A. L. Hays, do	"	6	"	"
J. S. Tibbitts, Plymouth,	"	14 months old,		"
J. H. Carpenter, Detroit,	"	7 years old,		"
Hiram Miller, Rawsonville,	"	2	"	"
S. H. Cleveland, Milo, N. Y.,	"	5	"	"
H. Newton, Rochester,	"	4	"	"
D. Macomber, Baltimore,	"	3	"	"
P. C. Lown, Constantine,	"	3	"	"
Peter Dearin, Parma,	"	3	"	"
D. C. Blair, Tipton,	"	2	"	for draught.
A. C. Fisk, Coldwater,	"	6	"	for all work.
E. M. Crippen, do	"	1	"	"
Teagan & Paddock, Medina,	"	3	"	"
C. Collins, Webster,	"	2	"	"
A. J. Porter, Hadley,	"	3	"	for draught.
H. A. Ray, Hindsburgh, Vt.,	"	3	"	for all work.

BROOD MARES.

John W. Strong, Detroit,	Mare	8 years	old, for all work.
H. C. Kibbee, do	"	4 "	"
J. H. Caniff, Hamtramck,	"	4 "	"
George Teagan, Redford,	"	2 "	"
Henry Stonehouse, Bayfield, C. W.,	"	10 "	"
D. M. Uhl, Ypsilanti,	"	6 "	"
J. W. Dickinson, Hillsdale,	"	6 "	"
do do	"	6 "	"
John McCrea, Coldwater,	"	7 "	"
F. V. Smith, do	"	5 "	"
J. H. Farnsworth, Detroit,	"	6 "	"
C. W. Green, Farmington,	"	15 "	blood.
J. Simmons, do	"	7 "	for draught.
A. D. Power, do	"	1 "	blood.
John Thomas, do	"	7 "	for all work.
T. H. Terwilliger, Austin,	"	7 "	"
C. A. Jeffries, Dexter,	"	6 "	"
do do	"	5 "	"
do do	"	4 "	"
F. W. Backus, Detroit,	"	6 "	"
Wm. H. Chappell, do	"	8 "	blood.
do do	"	5 "	"
David G. Brown, Nankin,	"	9 "	for all work.
John Martin, Detroit,	"	9 "	"
do do	"	9 "	"
H. A. Snyder, Greenfield,	"	5 "	for draught.
Abraham Fisher, Redford,	"	11 "	for all work.
H. A. Snyder, Greenfield,	"	5 "	"
E. B. Wilcox, Detroit,	"	8 "	"
George Miller, do	"	8 "	"
George W. Collins, Farmington,	"	6 "	"
A. L. Hays, Marshall,	"	4 "	"
J. S. Tibbitts, Plymouth,	"	8 "	"
Clark Piper, Dundee,	"	4 "	"
E. N. Wilcox, Detroit,	"	10 "	"

H. Walker, Detroit,	Mare	8 years old,	for all work.
H. Newton, Rochester,	"	5 "	"
Peter Burns, Springwells,	"	6 "	"
E. M. Crippen, Coldwater,	"	6 "	"
do do	"	8 "	"
do do	"	2 "	"
W. White, Birmingham,	"	5 "	"
J. Bolio, Detroit,	"	3 "	"
W. J. O'Callaghan, do	"	8 "	"
do do	"	5 "	"
R. Dermot, do	"	5 "	"
T. H. Hinchman, do	"	6 "	blood.
M. Fisher, Grosse Point,	"	9 "	for all work.
E. Perkins, Birmingham,	"	12 "	"
John Thomas, Farmington,	"	25 "	"

MATCHED AND SINGLE HORSES.

Thomas Hurst, Detroit,	1 pair Matched Horses	4	years old.
Lysander Morse, Eaton Rapids,	"	5	"
do do	"	for draught.	
E. W. Hudson, Detroit,	"	8	years old.
F. E. Eldred, do	"	7	"
James Bailey, Big Beaver,	"	9	"
L. B. Mizner, Detroit,	"	6	"
John Starkweather, Ypsilanti,	"	4 & 5	"
L. F. Patrick, Adrian,	"	3	"
A. E. Pardee, Plymouth,	"	4	"
Joseph Tireman, Greenfield,	"	4	"
E. Cuykendall, Bruce,	"	4	"
Wm. Humphrey, Saline,	"	5	"
Byron Green, Detroit,	"	5	"
H. B. Hurd, Monroe,	"	6	"
Samuel Blanchard, Farmington,	"	3	"
Henry Randolph, Adrian,	"	7	"
W. B. Wesson, Detroit,	"	6	"
L. S. Gilbert, Memphis,	"	4	"
Wm. Davis, Troy,	"	6	"

John H. Black, Dearborn,	pair matched	horses	2	years old.
Calvin A. Green, Troy,	"		3	"
J. Goodsell, Greenfield,	"		8	"
D. A. Nichols, Detroit,	"		9	"
H. H. Brown, do	"		7	"
Lyman Fuller, Troy,	"		7	"
Abraham Lapham, Farmington,	"		3	"
H. H. Emmons, Detroit,	"		6	"
H. Vreeland, Ann Arbor,	"		6	"
do do	"		4	"
H. V. D. Boget, Novi,	"		3	"
S. P. Brady, Detroit,	"		6	"
Eber Adams, Adrian,	"		5	"
H. Patridge, do	"		7	"
H. H. Norton, Marion,	1 pair Matched	Horses	4	years old, for all work
J. Cranson, Brighton,	"		3	" for draught.
D. S. Wilder, Toledo, Ohio,	"		5	" "
W. Burt, Mt. Vernon, 1 pair mares,		2 & 3	"	for all work.
N. P. Stewart, Detroit, 1 pair horses,		7	"	"
S. B. Morse, do	"	7	"	"
C. C. Trowbridge, do	"	7 & 8	"	"
J. W. Tillman, do	1 pair Mares	6	"	"
Z. Chandler, do	" Horses	8	"	"
C. L. Merriman, Jackson,	" "	5	"	"
D. G. Duel, Medina,	" "	5	"	"
J. P. Mansfield, Detroit,	2 " "	for plowing.		
C. A. Green, Troy,	1 " "		"	
Wm. Davis, do	1 " "		"	
Titus Dort, Dearborn,	1 " "		"	
James Forsyth, do	1 " "		"	
R. Shields, Florence,	2 " "		"	
F. B. Phelps, Detroit,	1 Horse	7	years old,	
Silas Sly, Plymouth,	"	6	"	for all work.
C. G. Blindbury, Detroit,	"	6	"	for carriage.
H. W. Lord, do	"	6	"	"
John Slinger, Woodville,	"	2	"	"
D. M. Uhl, Ypsilanti,	"	3	"	for all work.

D. M. Uhl, Ypsilanti,	Horse	2	years	old, for all work.
do do	Mare	3	"	"
do do	"	2	"	"
J. W. Dickinson, Hillsdale,	Horse	1	"	"
do do	"	1	"	"
J. H. Farnsworth, Detroit,	"	6	"	"
do do	"	7	"	"
S. Griggs, do	"	4	"	"
E. M. Clark, do	Mare	9	"	"
L. B. Mizner, do	"	6	"	"
E. Price, do	"	7	"	"
Mrs. B. B. Kercheval, Detroit,	Horse	7	"	"
J. Simmons, Farmington,	"	4	"	"
J. D. Franklin, Jonesville,	"	5	"	"
F. W. Backus, Detroit,	"	8	"	"
C. Hastings, do	"	6	"	"
John Ballard, Grosse Isle,	"	5	"	"
Joseph Tireman, Greenfield,	"	3	"	"
W. P. Edison, Port Huron,	"	8	"	"
G. P. Newberry, Romeo,	"	10	"	"
Henry Metz, Detroit,	"	7	"	"
Charles Field, Greenfield,	"	1	"	"
Byron Green, Detroit,	"	7	"	"
do do	"	5	"	"
John Martin, do	"	1	"	"
H. A. Snyder, Greenfield,	Mare	1	"	"
John R. Briggs, Romeo,	Horse	5	"	"
A. L. Chase, Detroit,	"	5	"	"
John R. Martin, Troy,	"	3	"	"
Julius A. Austin, Detroit,	"	6	"	"
H. McCrea, do	"	6	"	"
L. Macquivey, do	Mare	8	"	"
do do	"	8	"	"
H. Butler, Troy,	Horse	4	"	"
James Davidson, Hamtramck,	"	5	"	"
J. Bennett, Detroit,	Mare	4	"	"
D. Washer, Romeo,	Horse	6	"	"

C. Reeve, Detroit,	Horse	8	years old,	for all work.
E. Jerome, do	"	9	"	"
Wm Weyburn, Detroit,	"	6	"	"
W. Clark, Troy,	"	6	"	"
D. C. Blair, Tipton,	"	5	"	"
Peter Burns, Springwells,	"	1	"	"
George L. Bidwell, Adrian,	"	6	"	"
Lyman Fuller, Troy,	"	5	"	"
W. Owen, Adrian,	"	5	"	"
W. Patrick, do	"	6	"	"
T. F. Gerls, Troy,	"	4	"	"
A. Walcott, Detroit,	"	8	"	"
Mark Norris, Ypsilanti,	"	5	"	"
W. V. James, Detroit,	"	6	"	"
J. A. Peck, Pontiac,	"	5	"	"
E. Eldred, Detroit,	"	5	"	"
J. W. Tillman, do	"	9	"	"
W. Winslow, Big Beaver,	"	4	"	"
H. D. Terry, Detroit,	Mare	7	"	"
George S. Frost,	Horse	8	"	"
E. F. Brown, Medina, N. Y.,	"	5	"	"

COLTS.

F. E. Eldred, Detroit, 4 Colts.

J. Simmons, Farmington,	1 Mare Colt	4	months old.
John Thomas, do	1 Colt	5	"
Walter Henderson, Greenfield,	1 Mare Colt	4	"
F. W. Backus, Detroit,	1 Colt	3	"
David G. Brown, Nankin,	1 Mare Colt	4	"
Abraham Fisher, Redford,	1 "	4	"
H. Walker, Detroit,	1 Colt	3	"
James Smith, do	1 Stallion Colt	5	weeks old.
J. W. Dickinson, Hillsdale,	1 Colt	5	months old.
E. Perkins, Birmingham,	1 Stallion Colt	5	"

J. Parish, Detroit, 1 Reindeer 8 years old.
O. Hampton, Albion, 1 Jennet 8 "

SHEEP.

SPANISH MERINO.

B. Peckham, Parma, buck 8 years old.
" " " 7 "
" " " 1 "
" " " 2 "
" " " 3 "
" " " 2 "
" " " 1 "
" " " 1 "
" " " 2 "
" " 5 buck lambs, 3 to 5 months old.
" " 5 " 5 "
" " 5 ewes, 3 to 5 years old.
" " 10 ewes, 1 year old.
" " 5 " 2 "
" " 5 " 2 "
" " 5 ewe lambs 5 months old.
" " 5 " 4½ "

George W. Gale, Ypsilanti, buck 1 year old.
" " " 2 "
" " " 3 "
" " 5 ewes 3 years old.
" " 5 ewes 2 "

J. H. Benton, Clinton, buck 1 year old.
" " buck 2 years old.

J. W. Dickinson, Hillsdale, 2 bucks 2 years old.
" " 5 ewes 3 "
" " 5 ewe lambs.

C. A. Green, Troy, buck 2 years old.

Ira H. Butterfield, Utica, buck 3 years old.
" " 3 bucks 1 year old.
" " 5 ewes 3 "
" " 10 ewes 2 "

Daniel Kimball, Rutland, Vt., buck 1 year old.

John Johnson, Williston, Vt., buck 3 "
" " 5 ewes 3 "

FRENCH MERINO.

George W. Gale, Ypsilanti, buck 1 year old.
" " buck 2 years old.
" " 5 ewes 3 years old.
J. H. Benton, Clinton, buck 1 year old.
" " 5 buck lambs.
" " 5 ewes 3 years old.
" " 5 ewe lambs.
Wm. Congdon, Plymouth, buck 2 years old.
" " 2 bucks 1 year old.
H. S. Hall, Gaines, N. Y., buck 1 year old.
" " buck 3 years old.
" " buck 4 years old.
" " buck lamb.
" " 3 ewes 2 years old.
Daniel Kimball, Rutland, Vt., buck 2 years old.
" " 5 ewes 1 year old.
" " 5 ewes 2 years old.
" " 5 ewes 3 years old.
John Johnson, Williston, Vt., buck 3 years old.
A. L. Bingham, Cornwall, Vt., buck 3 years old.
" " buck 1 year old.
" " 10 ewes 3 years old.

SAXON AND SILICIAN.

C. A. Jeffries, Dexter, Silician buck 2 years old.
J. P. Gillett, Manchester, " " 3 "
John Johnson, Williston, Vt., " " 3 "
J. P. Gillett, Manchester, Saxon " 2 "
" " 2 " " 1 "
" " 5 " " lambs.
" " 5 " ewes 2 years old.
" " 5 " " lambs.
" " 5 " " 1 year old.

CROSS OF FULL BLOOD.

J. H. Benton, Clinton, buck 4 years old.
" " " 1 "

George W. Gale, Ypsilanti, 2 bucks 3 years old.
" " 6 " 2 "
" " 1 " 1 "
" " 5 ewes 3 "
" " 5 " 2 "
" " 5 " 1 "

J. P. Gillett, Manchester, 10 Saxon and Silician ewes 3 years old.

Ira H. Butterfield, Utica, 3 bucks 1 year old.
" " 5 " lambs.
" " 10 ewes 2 years old.
" " 10 " 1 "
" " 5 ewe lambs.

H. S. Hall, Gaines, N. Y., 3 bucks 2 years old.
" " 5 ewes 1 to 3 years old.

Daniel Kimball, Rutland, Vt., 5 " 2 years old.
" " 5 " 1 "
" " 1 buck 2 "

John Johnston, Williston, Vt., 1 " 2 "
" " 5 ewes 2 "

A. L. Bingham, Cornwall, 1 buck 2 "

LONG WOOLED.

J. W. Dickinson, Hillsdale, buck 2 years old.
" " 10 ewes 3 years old.
" " 5 ewe lambs.

Joseph Tireman, Greenfield, 5 ewes 2 years old.
" " 4 bucks 1 year old.
" " 5 buck lambs.
" " 5 ewe lambs.

Thomas Edwards, Ann Arbor, buck 3 years old.
" " buck 1 year old.
" " 1 ewe 3 years old.
" " 5 ewe lambs.

O. W. & G. P. Bennett, Jackson, buck 2 years old.
" " buck 1 year old.
" " 5 ewes 2 years old.

Thos. Salmonie, Amherstburg, C. W., 9 ewes 2 years old.
" " 3 bucks 2 years old.

Parker Haner, Wilson, N. Y., 5 bucks 1 year old.
" " 1 buck 4 years old.
" " 5 ewes 2 years old.
Robert Smith, Chatham, C. W., 3 bucks 1 to 3 years old.
" " 2 buck lambs.
Silas & G. W. Camp, Portage Lake, 5 ewes 5 years old.
" " 5 ewes 4 years old.
" " 5 ewes 3 years old.
" " 5 ewes 2 years old.
" " 5 ewes 1 year old.
Henry Norton, Avon, Ohio, 5 ewes 1 year old.
" " 5 bucks 1 to 3 years old.

MIDDLE WOOLED.

Joseph Tireman, Greenfield, 5 ewes 2 years old.
W. H. Lester, Utica, 2 bucks 3 years old.
" " 1 buck 1 year old.
" " 5 buck lambs.
" " 5 ewes 3 years old.
" " 5 ewe lambs.
Wm. Maiden, Plank Road, Southdown buck.

GRADE.

J. W. Dickinson, Hillsdale, 5 ewes 3 years old.
C. B. Seymour, Scio, buck 2 years old.
" " buck 1 year old.
Joseph Tireman, Greenfield, 5 ewes 2 years old.
" " 5 ewes 1 "
O. W. & G. P. Bennett, Jackson, buck 1 "
" " 5 ewes 1 "
" " 5 ewe lambs.
C. A. Green, Troy, buck 1 year old.
" " buck 3 "
Mrs. Clarissa Otis, Greenfield, 5 buck lambs.
" " 10 ewe lambs.
J. L. Stout, Troy, 5 ewes 2 years old.
" " 5 ewe lambs.

Fred. Forsyth, Dearborn, 1 Shepherd's Slut and Pups.

SWINE.

Thos. Smith, Detroit, sow 4 years old, cross of Cheshire and Grass.
" " " 1 "
" " boar 18 months old, cross of Berkshire and Grass.
" " 8 pigs 2 weeks old, cross of Berkshire, Grass and Cheshire.
Harvey King, Detroit, 4 fat hogs 1 year old.
Crippen & Freeman, Coldwater, boar, Berkshire.
" " sow, "
Wm. Moore, Detroit, sow 10 months old, Suffolk.
" " 3 pigs 4 " "
H. A. Snyder, Greenfield, boar 18 months old, Suffolk.
C. A. Green, Troy, " 6 " "
" " sow 6 " "
Mrs. Clarissa Otis, Greenfield, fat hog 1 year old.
J. S. Tibbitts, Plymouth, boar 18 months old, Essex.
" " lot pigs 5½ months old, Essex.
" " lot pigs 5½ " Suffolk.
" " boar 5½ " "
" " sow 5½ " "
" " lot pigs 5 months old, cross of Suffolk and Native.
J. S. Tibbitts, Plymouth, boar 6 months old, grade.
" " " 18 " Suffolk.
Peter Dearin, Parma, sow 3 years old, Leicester.
" " 4 boar pigs 4 months old, Suffolk.
A. C. Harris, Toledo, Ohio, 8 pigs 6 weeks old, "
" " " 4 pigs 5 months old, "
" " " 1 boar 5 " "
Mark Flannagan, Detroit, sow 2 years old, grade.
" " 6 pigs, grade.

POULTRY.

Wm. Maiden, Plank Road, lot chickens, Brahma Pootra.
" " " cross of game Brahma Pootra.

Wm. Maiden, Plank Road, lot chickens, Shanghai.
" " " White Brahma.
Crippen & Freeman, Coldwater, 1 coop fowls, Light Brahma.
" " 2 " Mottled "
" " 1 " White Shanghai.
" " 1 " Brown "
" " 1 " Red China.
" 1 " Black Shanghai & Brahma.
" 1 " Hamburg & Dominico.
" " 1 " Dominico.
" " 1 " Dorking.
" " 1 " Cochin and Bantam.
" " 1 " Seabright Bantam.
" " 1 " wild game.
" " 1 " Dominico Shanghai.
P. Brennon, Detroit, 1 " yellow Shanghai.
" " 1 " white "
Samuel Wayne, Dearborn, 1 coop turkeys, black.
Francis Leslie, " 1 coop geese, grey.
" " 1 coop Guinea fowls.
" " 1 coop ducks.
Mark Flannagan, Detroit, 1 coop fowls, white Shanghai.
" " 1 " brown "
Joseph Phine, " 2 " Shanghai.
A. & W. Buhl, " 1 " Bantam.
Theodore Stebbins, " 1 " Cochin China.
M. Fisher, Grosse Point, 1 coop geese, grey.
John W. Calahan, Detroit, 1 coop fowls, Bantam.
D. R. Post, " 1 " Brahma Pootra.
" " 1 " Dorking.
" " 2 " Shanghai.
H. Fowler, Detroit, 1 coop fowls, Shanghai.
" " " cross blood.
E. H. Cressy, Troy, " Brahma Pootra.
" " " Cochin China.
" " " black Shanghai.
" " " red Shanghai.

E. H. Cressy, Troy, 1 coop fowls, white Shanghai.
" " " black Spanish.
" " " Kong Kong.
" " " Surrey Dorking.
" " " speckled Dorking.
" " " Sumatra pheasant game.
" " " Malacca game.
" " " cross of game and bantam.
" " " cross of game and Brahma.
" " " Brahma and Dorking.
" " " white bantam.
" " " Siberian bantam.
" " " seabright bantam.

James Baker, Detroit, 1 coop fowls, Shanghai.
" " " Cochin China.

H. Walker, Detroit, 2 coop fowls, black Cochin.

Asa P. Mormon, Detroit, 1 coop fowls, Irish and English game.

Edward McCard, Coldwater, 1 " Brahma.

W. S. Penfield, Detroit, 1 " "

Thos. R. Bowers, " 1 pair ducks.

S. N. Webster, Detroit, 1 " Muscovy.

Michael Logan, " 1 cage mourning doves.

E. H. Cressy, Troy, lot of eggs.

FARM IMPLEMENTS.

Joseph Sedgebeer, Detroit, corn stalk and straw cutter combined.

John W. Hankinson, Detroit, atmospheric churn.

F. F. Parker, Detroit, 1 harrow.
" " 1 corn cultivator.
" " 1 fanning mill.
" " 1 corn stalk cutter.
" " 1 straw cutter.
" " 1 mowing machine.
" " 1 reaper and mower combined.
" " 1 seed planter.

F. F. Parker, Detroit, 1 corn sheller.
" " 1 vegetable cutter.
" " 1 stiff soil plow.
" " 1 light soil plow.
" " 1 old soil plow.
" " 1 double plow.

Cowing & Co., Seneca Falls, N. Y., 1 garden engine with suction.
" " 1 " with glass air chamber without suction.

Cowing & Co., Seneca Falls, N. Y., 1 yard well pump.
" " 1 lift pump for watering stock.
" " 1 tight-top cistern pump.
" " 1 deep-well force pump.
" " 1 brass house-pump.
" " 1 windmill pump.
" " specimen copper tubing with couplings.
" " 1 discharge pipe.
" " specimens of wagon boxes.

L. A. Pelton, Chicago, Ill., 1 corn sheller.

Andrew Race, Scipio, N. Y., Winegar's automaton gate opener and closer.

H. W. Hubbard, Ansonia, Conn., Sage's broadcast grain sower.

T. A. Flowers, Pontiac, 1 wheat cultivator with spring steel teeth.
" " 1 " 9 spring steel teeth.
" " 1 corn cultivator "

John Collins, Detroit, 2 Buffalo wagons.
" " 1 half Buffalo wagons.

Peter P. Kocher, Newark, N. Y., wheat drill.

D. O. & W. S. Penfield, Detroit, Emory's horse power, double.
" " " thrasher and separator.
" " " saw mill, circular saw.
" " Pease's excelsior double horse power.
" " " thrasher and separator.
" " " saw mill, circular saw.
" " Hitchcock's patent cider mill.
" " Pease's " "
" " Emory's " "
" " vegetable cutter.

D. O. & W. S. Penfield, Detroit, power straw cutter.
" " 2 Cumming's power straw cutters.
" " 3 Riches' patent "
" " 2 Grant's fanning mill.
" " Keech & Stillwell's do and separator.
" " self acting cheese press.
" " Yankee corn sheller.
" " Boston "
" " hide roller straw cutter.
" " " " with wrought shaft.
" " Peckham's cultivator, revolving points.
" " Cramer's " steel teeth.
" " 6 thermometer churns.
" " 3 sizes sausage stuffers.
" " 6 " " cutters.
" " 3 water rams.
" " 1 fancy plow, Starbuck's.
" " 2 Morgan's cradles and scythes.
" " 6 hand rakes.

D. O. & W. S. Penfield, Detroit, six turned axe helves.
" " " twelve nonpareil apple parers, iron.
" " " twelve wooden "
" " " six Starbuck's plows.
" " " Ruggles, Nourse & Mason's plows.
" " " subsoil plow.
" " " steel "
" " " two sets Cramer's cultivator teeth.
" " " " Peckham's do
" " " one dog power.
" " " two road scrapers.
" " " three lifting pumps.
" " " one well curb, reel and spout.
" " " two spades, Ames'.
" " " one ditching spade, Ames'.
" " " two shovels, Ames'.
" " " six Patridge's solid dungforks.
" " " " potatoe hooks.

D. O. & W. S. Penfield, Detroit, three bush scythes.
" " " six corn knives.
" " " two ox-yokes.
" " " two folding harrows, Geddies'.
" " " two road scrapers, iron.
" " " one agricultural furnace, Peckham's.
" " " two corn and cob mills, Scott & Hedges'.
D. O. & W. S. Penfield, Detroit, one corn and cob mill, Felton's.
" " one iron root puller.
" " one iron patent pig trough.
" " one portable blacksmith's forge.
" " lever straw cutter.
" " wrought iron post auger.
" " cast do
" " Boston fan mill.
" " Emery's seed drill, horse and hand.
D. O. & W. S. Penfield, Detroit, Dowe's seed drill, horse and hand.
D. O. & W. S. Penfield, Detroit, 1 garden seed drill, hand.
" " 1 Pontiac " horse.
" " 2 horse wheel cultivator.
" " automaton reaper, Wright's.
" " pruning saw and chisel.
" " 2 hay knives.
" " 1 iron well curb.
" " 6 steel garden rakes.
" " 2 set grindstone playings.
" " 6 floral rakes.
" " 3 tree scrapers.
" " 2 pair hedge shears.
" " 6 transplanting trowels.
" " box budding tools.
" " bill hook.
" " pruning saw.
" " grafting chisel.
" " sod knife.

D. O. & W. S. Penfield, Detroit, 3 sample garden borders.
" " 1 cattle tie.
" " 4 sets barn and gate hinges.
" " 2 garden syringes.
" " 6 farm dinner horns.
" " 6 halter chains.
" " 6 two tined forks.
" " 6 three tined forks.
" " 6 four tined forks.
" " 6 milk pans.
" " sample of pump chains.
" " 6 scuffle hoes.
" " 6 Cummington scythe stones.
" " 6 Kasas "
" " sample bull rings.
" " " ox balls.
" " " bow pins.
" " 6 corn knives.

Perkins & Bishop, Norwalk Ohio, cornstalk cutter.
" " one pump.

L. Bishop, " corn cultivator.

J. R. Tuttle, Clinton, rotary churn.

Scott & Hedges, Cincinnati, Ohio, little giant corn and cob mill, 2.
" " do do 3.
" " do do 4.

Nathan Potter, Hillsdale, one bee hive.

T. J. McGowan, Cincinnati, Ohio, double action suction force pump.

C. H. Mason, Lowell, Mass., corn and cob crusher.

G. F. Lockner & Co., Adrian, Moore's improved patent grain drill.

H. B. Lamb, Sandusky, Ohio, farm and park gates.

Charles McKinsie, Adrian, straw cutter, horse and hand.
" " straw and stalk cutter, horse power.
" " Harrow, Anderson's.

J. B. Bromfield, Plymouth, cultivator.

E. Taylor, Waterloo, N. Y., Keech & Stillwell's combination fan mill.

J. S. Wright, Chicago, Illinois, Atkins' automaton reaper and raker.

C. B. Seymour, Scio, grain drill.

C. B. Seymour, Scio, broadcast sower.

Davis, Austin & Co., Jackson, two farm wagons.

C. H. Bennett, Plymouth, portable cider mill.

J. H. Havens, Chautauque county, N. Y., corn sheller.

Samuel Stanbro, Salem, grain cradle.

" " grass seed sower.

A. B. Crawford, Piqua, Ohio, clover huller and separator.

Randlet Jones, Rocktown, Ill., hand corn planter.

F. F. Parker, Detroit, horse power.

R. H. Wallace, Detroit, iron beam plow.

A. &. J. V. Harmon, Northville, drain tile machine.

" " sample of drain tile.

T. Duel, Detroit, straw cutter.

Haviland & Rhodes, Ann Arbor, 2 horse wheat drill.

M. J. Cook, Detroit, portable conical grist mill for farmers' use, No. 1.

" " " " " No. 2.

" " " " " No. 4.

R. N. Farley & Co., Jackson, Hyde's improved cultivator or horse hoe.

T. A. Flower, Pontiac, 2 spring steel teeth cultivators.

Stephen Clark, Howell, plow for all work.

Elliott & Harrington, Northville, 1 double plow.

" " 1 sod "

" " 1 fallow "

Joel Ellis, Detroit, model bee hive and platform.

R. Shields, Florence, 1 light soil sod plow.

" " 1 heavy soil sod plow.

E. Warren, Schoolcraft, steel plow for prairie.

Willard Fisher, Brockport, N. Y., grain reaper and self-raker, Seymour, Morgan & Co.,

Willard Fisher, Brockport, N. Y., Ketchum's mowing machine.

M. H. Mansfield, Ashland, Ohio, clover huller and separator.

A. B. Felt, Brooklyn, straw cutter, Ritchie's.

" " " Cummings'.

R. H. Wallace, Detroit, pioneer plow for deep plowing, iron beam.

" " "D" two horse plow for sod, "

" " "D" " " for stubble, "

" " Washington, three horse plow, "

R. H. Wallace, Detroit, double mould board corn plow, iron beam.
" " single " " "
James Andrews, Pontiac, Woodward's improved corn planter.
J. A. Peck, " Manny's combined reaper and mower.
J. C. Rich, Penfield, N. Y., straw and hay cutter.
" " corn stalk cutter.
D. O. & W. S. Penfield, Detroit, two straw cutters.
" " two cornstalk cutters, Gordon's patent, two sizes.
F. F. Parker, Detroit, one fan mill.
" " one sod plow, deep tiller.
Arms & Robinson, Kalamazoo, one gang plow.
" " one wheel cultivator.
Wm. Weyburn, Detroit, two Thatcher force pumps.
E. Hutson, Pontiac, American lifting pump, with Foley's patent fixtures.

BUTTER, CHEESE, SUGAR AND HONEY.

Robert R. Briggs, Romeo, one plain cheese.
" " one sage do
Luther Lapham, Farmington, three new cheese.
" " one sage, do
" " one old do
G. R. Hurd, Monroe, one sage cheese.
Norton Lapham, Livonia, one sage cheese.
" " 23 new do
J. H. Murray, Farmington, 16 new do
" " one old do
J. S. Tibbitts, Plymouth, two new do
" " two sage, do
G. & R. McMillan, Detroit, four Hamburg cheese.
Jacob Beller, Detroit, three Hamburg cheese, imitation of Swiss.
James Bayley, Big Beaver, twenty-one lbs. butter.
Mrs. Wm. R. Jones, Pontiac, 50 lbs butter, made in July.
" " 15 "

Joseph Tireman, Greenfield, 15 lbs. butter.
J. D. Williams, Dexter, 15 lbs. butter, made in June.
" " 15 "
Mrs. O. Hampton, Hickory Grove, 20 lbs. butter, made in June.
" " 18 " new.
Mrs. G. W. Collins, Farmington, 15 " made in June.
" " 15 " made in September.
" " 15 "
Amos Mead, Mead's Mills, 18 " made in June.
Wm. Lowes, Birmingham, 15 " new.
" " 15 " made in June.
Mrs. Titus Dort, Dearborn, 15 " made in September.
James Smith, Detroit, 50 " new.
" " 20 " made in June.
J. B. Springer, Livonia Centre, 15 " made in September.
Mrs. G. W. Collins, Farmington, 20 lbs. maple sugar.
Orson Ingal's, Almont, 10 "
C. R. Gilbert, Corunna, 10 "
Joseph Smith, Detroit, 2 crocks lard.
Benjamin Lee, " 1 jar molasses candy.
J. H. Wineman, " 1 case confectioneries.
W. W. Rider, " 1 bride's cake, ornamental confectionery.
" " 1 ornamental basket confectionery.
John Johnson, " lot of cakes and pies.

DOMESTIC MANUFACTURES.

Charles Zircher, Detroit, scroll and fancy screen.
Julius Mecher, " 2 book cases.
S. W. Taylor, " portable galvanized iron ovens, 3 sizes.
Thomas Shaftoe, Southfield, 23 yards rag carpet.
John Johnson, Detroit, 2 ottomans.
Mrs. F. Meru, " 1 child's carriage.
Croul Brothers, " 6 sides upper leather.
" " 6 " bridle "
" " 6 " harness "

Croul Brothers, Detroit, 1 dozen calf skins.
" " 1 " sheep skins, (Russet).
Mrs. C. A. Dodge, " 1 vest.
Mrs. Abigail Brink, Nankin, 1 woolen coverlet.
" " 1 pair plaid woolen blankets.
" " 10 yards flannel.
" " 1 woolen shawl.
J. B. Broomfield, Plymouth, horse shoes.
Mrs. James Bayley, Big Beaver, 1 pair three thread woolen stockings.
W. A. Dennison, Troy, 1 pound three thread woolen yarn.
" " 1 pair " " stockings.
" " 1 " two thread " "
Davis, Austin & Co., Jackson, pleasure sleigh.
P. Hendrick, Detroit, 6 pieces rag carpet.
Mrs. C. B. Seymour, Scio, pair woolen socks.
Miss Kate Woodbridge, Detroit, 1 small French bedstead.
Mrs. Louisa Stratton, " 1 knit cotton counterpane.
" " 1 satin scarf.
Alex. Chope & Co., Detroit, 1 Prince Albert buggy, covered top.
" " 1 bracket front " "
" " 1 open buggy.
Eagle & Elliott, " 1 overcoat.
" " 1 pair pants.
" " 1 vest.
J. Colby, Detroit, 1 overcoat.
" " 1 dress coat.
" " 1 pair pants.
" " 1 vest.
E. C. Wilder, Detroit, 1 case assorted tools, cutlery, plated ware, &c.
Sylvester Knight, Detroit, 1 piece rag carpet, 33 yds.
Hallock & Raymond, Detroit, 1 dress coat.
" " 1 vest.
" " 1 pair pants.
" " 1 boy's suit.
" " 1 jacket.
" " 1 overcoat.
" " 1 plaid sack.

Mrs. Prince Bennett, Ypsilanti, 1 pair woolen knit stockings.
Frost & Messenger, Detroit, 1 pair woolen blankets.
" " 1 lot counterpanes.
Wm. Penfield, " lot of augurs.
Mrs. John W. Leonard, Pontiac, 1 pair woolen knit socks.
" " 10 yds. rag carpet.
Charles Parsons, Pontiac, 1 light 2 horse carriage.
James Cunningham, Rochester, N. Y., 1 cal che.
" " " 1 barouche,
" " " 1 mock caleche.
" " " 1 French Phæton.
Holmes & Co., Detroit, 1 medallion carpet.
" " 4 Mosaic rugs.
" " 2 English velvet tapestry carpets.
L. Emery, Hillsdale, 2 pieces woolen carpet.
" " 2 pairs woolen blankets.
" " 1 Woolen shawl.
" " 1 lb. woolen yarn.
Harvey Armstrong, Livonia, 3 pieces linen cloth.
S. Guyterman & Brother, Ann Arbor, 1 dress coat.
" " 1 vest.
Mrs. Sarah S. Cleveland, Hillsdale, 4 woolen shawls.
" " 1 woolen comforter.
" " 1 pair knit cotton stockings.
" " 1 lb. woolen yarn.
" " 2 pieces flannel.
David G. Brown, Nankin, 2 pieces rag carpet.
Mrs. L. H. Hewett, Detroit, 1 cotton coverlet.
Mrs. George W. Collins, Farmington, 1 patch-work quilt.
" " 1 pair silk stockings.
" " 1 pair cotton knit stockings.
" " 1 pair linen "
Mrs. Sarah Jane Pierce, Detroit, 1 pair woolen blankets.
Miss Anne E. Forsyth, " "
Miss Elizabeth Forsyth, " 1 white quilt.
Leland Crandall, " 1 fire place heater and grate.
S. S. Barrows, " 1 house frontispiece.

S. Barrows, Detroit, 1 mahogany front door, with carved mouldings and ornaments.

S. S. Barrows, Detroit, 1 front door, top pannel circular, with raised mouldings.

S. S. Barrows, Detroit, lot common inside doors.

" " lot window sash, common and counter check.

" " lot of window blinds.

" " lot of stair hand railing and other mouldings, wrought by machinery.

P. Blake, Detroit, 1 pair patent leather boots.

" " 1 pair calfskin boots, sewed.

" " " pegged.

" " " cork soles.

Mrs. Francis Leslie, Dearborn, 1 knit shirt.

" " 1 pair knit cotton stockings.

Mrs. E. P. Christian, Detroit, 1 crotchet counterpane.

Michael Martz, Detroit, 1 pair patent leather top boots.

" " 1 pair calf skin " (sewed).

" " 1 pair patent leather gaiters.

Laura Lee, Wayne, 1 knit sack.

" " 1 knit coverlet.

E. W. Parsons, Detroit, 12 yards rag carpet.

" " 15 yards "

Thomas Nichols, " 1 knit cotton quilt.

John Patton, " 1 shifting top buggy.

" " 1 open top "

" " 1 patent spring "

" " 2 sliding seat "

" " 1 light 2 or 1 horse carriage.

George Winter, " 3 cases hats.

" " 1 case caps and furs.

Tuttle, Edson & Bates, Detroit, 1 patent spring rockaway.

Miss Eliza Horan, " 1 patch work quilt.

Edmond Hall, " 1 buggy.

Henry Webber, Detroit, 2 rosewood sofas.

" " 2 lady's sewing chairs.

" " 1 oak, marble top, sideboard.

Henry Webber, Detroit, 2 marble top, rosewood sideboards.
" " 6 parlor chairs.
" " 1 oak garden chair.
" " 1 oak hall chair.
" " 1 rosewood hat stand, marble top.
Mrs. Sarah N. Walker, Rochester, double, woolen coverlet.
Hilbourne & Cleveland, Detroit, 1 case clothing.
Nichols & Lefavour, Detroit, 1 case boots and shoes.
Mrs. Margaret Lowes, Birmingham, 1 patch work quilt.
" " 1 pair woolen knit socks.
" " 1 pair woolen knit gloves.
Bradley & Carson, Rochester, N. Y., 1 open buggy.
" " 3 top buggys.
Henderson & Satchell, Detroit, 1 overcoat.
" " 1 pair pants.
Mrs. Martin Kimball, Birmingham, 1 patchwork quilt.
Mrs. H. R. Mason, Farmington, 1 pair knit linen stockings.
" " " cotton "
Mrs. J. L. Stout, Troy, 1 lb. woolen yarn.
" " 1 pair woolen stockings.
" " " socks.
" " 1 lb. woolen yarn.
" " 1 pair cotton stockings.
Nichols & Lefavour, Detroit, 2 pair cowhide boots.
" " 1 pair calfskin " pegged.
John Nichol, St. Clair, 1 piece pilot cloth.
" " " broadcloth.
Miss Cynthia Ann Smith, Livonia, 1 pair linen stockings.
" " 1 pair black woolen stockings.
" " 1 pair white "
" " 2 pair cotton stockings.
" " 1 pair mixed "
Mrs. J. Arnold, Dexter, 1 pair woolen blankets.
" " 10 yards of flannel.
" " 10 yards of woolen carpet.
" " 2 pair woolen mittens.
" " 1 woolen coverlet.

Laura Stone, Roseville, 20 yards rag carpet.
Mrs. Ferrand Gaines, Dearborn, 10 yards flannel.
" " 1 lb. white stocking yarn.
Mrs. W. S. Getchell, Detroit, 2 hearth rugs.
Mrs. J. Arnold, Dexter, 2 patchwork quilts.
" " 1 woolen coverlet.
Wm. Ewers, Detroit, 1 pork barrel.
" " 1 flour "
Mrs. S. A. Randall, Brooklyn, 1 pair woolen mittens.
Mrs. J. J. Rinsched, Detroit, 1 knit white quilt.
A. Fisk, Coldwater, 1 sulky.
Beecher, Rice & Ketchum, Detroit, 1 piece body Brussels carpet.
" " " 2 pieces three ply carpet.
" " " 1 piece velvet stair carpet.
" " " 1 piece medallion ingrain carpet.
" " " 1 piece felt carpet.
" " " 1 piece wool drugget.
" " " 1 piece oil cloth.
" " " 2 gold bordered shades.
" " " 1 model spring bed and mattras.
" " " 1 piece super ingrain carpet.
" " " 3 remnants carpet.
" " " 1 set brocatelle curtains with cornice and trimmings.
Beecher, Rice & Ketchum, Detroit, 1 Putnam's curtain fixture.
" " 1 piece $\frac{5}{8}$ velvet stair carpet.
" " 1 piece English velvet carpet.
" " 1 piece 4 | 4 Brussells do
" " 4 pieces 3 | 4 " do
" " 1 piece 12 | 4 Rochedale Blankets.
" " 1 piece 10 | 4 "
" " 2 wool mats.
" " 2 Mosaic rugs.
" " 2 hearth rugs.
" " 2 pieces satin d'laine.
" " 2 pieces brocatelle.
Mrs. J. Starkweather, Ypsilanti, 1 pair cotton shell-work stockings.

Mrs. J. Starkweather, Ypsilanti, 1 pair linen stockings.
" " 1 pair black silk stockings.
" " 1 pair white cotton socks.
Mrs. S. Chilson, Livonia Centre, 4 pair woolen stockings.
" " 1 patchwork cushion.
" " 1 lb. woolen yarn.
" " 10 yards wool and cotton plaid cloth.
Miss Sarah S. Cleveland, Hillsdale, 1 pair woolen socks.
Alex. Chope & Co., Detroit, 1 light, open, spring buggy.
Nall, Duncklee & Co., Detroit, 1 velvet medallion carpet.
" " 1 piece velvet "
" " 1 " " stair "
" " 1 " Brussels stair "
" " 1 " tapestry ingrain carpets.
" " 2 " oil cloth.
" " 6 velvet rugs.
" " 1 Brussels rug.
" " 1 lambs wool rug.
" " 4 velvet fire screens.
" " 1 velvet table spread.
" " 2 cloth piano "
" " 3 pcs. silk and wool damask.
" " 1 set lace curtains.
" " 14 cord and tassels.
" " 4 large cord and tassels.
" " 2 curtain loops.
" " 3 pieces cornice.
Mrs. J. L. Stout, Troy, 1 pair woolen knit mittens.
Mrs. Joseph Aspinwall, Detroit, 1 linen quilt, spun, wove, and quilted by Miss Smith, 1792.
Mrs. E. H. Bristol, Troy, 12 yards rag carpet.
Miss C. McKim, Ypsilanti, 2 pair knit cotton stockings.
" " 1 pair woolen "
Mrs. L. B. Willard, Detroit, 1 pair " "
Mrs. C. Hadsell, Pontiac, 1 pair " "
" " 2 pair cotton "
" " 1 pair linen "

Mrs. C. Hadsell, Pontiac, 1 piece linen wove kearsey cloth.
Miss Sarah C. Owen, Pontiac, 1 pair knit woolen stockings.
Mrs. John Thomas, Oxford, 1 pair fringed woolen mittens.
" " 1 bunch woolen yarn.
Mrs. J. Newton, Ypisilanti, 1 pair woolen blankets.
" " 1 wove cotton and woolen coverlet.
" " 1 pair woolen blankets.
Dudley & Holmes, Detroit, 1 silver bathing room apparatus, consisting of hot and cold circulating shower copper bath tub, gilt marble wash stand and water closet.
Dudley & Holmes, Detroit, 1 diamond cooking range and circulating copper boiler.
Dudley & Holmes, Detroit, 1 brass lifting and forcing pump.
" " 1 Boynton's Patent, hard and soft coal, hot air furnace.
Dudley & Holmes, Detroit, 1 Franklin parlor wood stove.
" " 1 Boston air tight "
" " 1 parlor cooking stove.
" " 1 Queen of the West improved cooking stove.
Dudley & Holmes, Detroit, 1 National cooking stove.
" " 1 bronzed marble top pedestal register.
" " 1 hard coal stove.
Waterfield & Atkin, Eagle Lake, lot of woolen undershirts.
" " lot of woolen and cotton drawers.
" " lot lambs wool stockings.
" " lot silk gloves and mittens.
" " lot woolen caps.
" " 1 pair silk wristlets.
Theodore Foster, Ludlowville, N. Y., 1 buggy.
Robt. L. Barrowman, Detroit, 1 case hats, caps and furs.
H. T. Stannard, " 1 patch work quilt.
Mrs. Laura Andrews, Washington, 1 white "

PAINTINGS, DAGUERREOTYPES, MUSICAL INSTRUMENTS, NEEDLE, SHELL AND WAX WORK.

Charles Schlickum, Detroit, 1 oil painting, scene near the Rhine.
James Campbell, " 1 case valentines.
Wm. Phelps & Bro., " 1 case wax fruits and flowers.
" " 1 case confectionery, fruits and flowers.
M. E. Barrett, " 5 specimens penmanship.
Miss Rademaker, " 1 case hair work.
Mrs. C. V. Morass, " 1 case wax work.
Miss Louisa Shaw, " 1 case hair work.
D. Aldrich, " 1 stand ornamental leather work, and wax fountain.
D. Aldrich, " frame of wax fruit.
Cooper & Cowley, Cleveland, Ohio, specimen of penmanship.
" " " " pen drawing.
H. Schoonacker, Detroit, 1 piece needlework.
Philip Ransom, Pontiac, 1 stand cloth, needlework.
James Kerr, Detroit, lot of sea shells.
Mrs. John McCurdy, Detroit, case of wax flowers.
" " case of wax flowers and fruit.
" " 1 stand ornamental needlework.
G. D. Davis, Cleveland, Ohio, 2 specimens mechanical drawing.
A. D. Power, Farmington, 2 ottoman covers, raised worsted work.
Mrs. S. W. Taylor, Detroit, 2 specimens of embroidery.
Joseph Styles, Summit, 1 vase worsted flowers.
Miss Kate Woodbridge, Detroit, 1 case shells, arranged, from Florida.
Mrs. Kercheval, " 2 pair sharks jaws, from Florida.
" " 1 case made from the back bone of a shark.
Miss Mary James, Tecumseh, 2 ornamental stands in leather.
" " 1 embroidered smoking cap.
" " 1 needle worked vest.
" " 1 pair gents slippers, needlework.
" " 1 gentleman's dressing case, of ornamental leather work.
Mrs. J. S. Miller, Detroit, 1 hexagon sofa pillow, needlework.
" " 1 star " " "

Miss M. F. Elliott, Detroit, 1 infant's shawl, needlework.
Mrs. Martha Halpin, Detroit, 1 embroidered flannel dress,
" " 1 " muslin petticoat.
U. Gregory, Detroit, 3 specimens penmanship.
Mrs. John W. Leonard, Pontiac, 1 lace cape, needlework.
" " 1 worked collar.
Holmes & Co., Detroit, 1 white embroidered infant's cloak, needlework.
" " 1 cotton velvet, " "
" " 1 black embroidered infant's scarf, "
" " 3 dress cloaks, "
" " 8 fancy head dresses, "
" " 6 dress bonnets, "
" " 2 infant's honeycomb hats, "
Mrs. O. S. Allen, " 1 ladies' skirt, "
W. B. Sanders, Ypsilanti, Polychromatic painting.
C. Aspinall, Detroit, velvet painting.
W. E. Peters, " 1 marble lamb.
" " 1 sculptured monument and statue.
" " 1 pair birds, marble.
" " 1 small monument.
J. B. Bloss, " 2 fancy chairs, needlework.
A. Bradish, " 1 portrait of Rev. J. Baughman.
" " 1 full length portrait of son of A. H. Dey.
G. D. Sidway, " 1 animal painting.
A. Bradish, " 1 painting, Chapande Paille, from the original of Sir Joshua Reynolds.
A. Bradish, Detroit, portrait of D. Bethune Duffield.
George E. Hall, Detroit, 4 oil portraits, photographic.
" " 3 pastell portraits, "
" " collection water colored mezzographs.
" " " oil "
" " " plain "
" " " daguerreotypes.
W. R. Searing, Detroit, 2 embroidered under handkerchiefs.
" " 3 scripture views, in worsted.
" " 1 Scottish coat-of-arms.
" " scene from the Waverly Novels, in worsted.

Miss L. Lord, Detroit, embroidered merino cape, needlework.
John McWilliams, Detroit, Indian suit and snow shoes.
Miss A. Mead, Mead's Mills, 2 ladies capes, needle work.
Miss Alice Stead, Detroit, 2 embroidered robe skirts.
" " 1 " "
" " 3 " collars.
" " 1 pair undersleeves.
Miss Josephine Bailey, Detroit, lot of artificial flowers.
Mrs. Duffield, " 1 crochet slumber cushion.
" " 2 " tidies.
Mrs. Wm. Lowes, Birmingham, 1 pair worked pillow cases.
Sutton & Brother, Detroit, collection photographs, plain.
" " " " painted like ivory miniatures.
" " " " on canvas, painted in oil.
" " " daguerreotypes on glass.
Mrs. M. Remington, Detroit, 1 oil painting.
Mrs. Geo. R. Griswold, Detroit, 1 child's embroidered merino dress.
Miss Mary A. Howland, Ypsilanti, 1 embroidered handkerchief.
Detroit Melodeon Company, Detroit, 2 melodeons.
Mrs. J. A. Berry, " embroidered chair cover.
Miss Holman, " " shirt.
Miss Olive C. Guild, " 2 Grecian paintings in oil.
James Northrop, " 2 baskets artificial fruit.
Mrs. J. Arnold, Dexter, 1 knit tidy.
" " 2 worked collars.
" " 2 lamp mats.
J. Brownell, Utica, 1 fancy box, ornamental leather work.
Noah Hart, Detroit, 1 lemon tree, wax work.
" " 1 alum basket with wax fruit.
Mrs. Wm. Armstrong, Detroit, 1 pair embroidered shoes.
G. Watson, Detroit, 2 landscapes.
" " 1 portrait of a dog.
Mrs. H. Walker, Detroit, map of the two hemispheres, drawn with a steel pen.
Mrs. H. Walker, Detroit, map of the British Isles.
" " 2 specimens of penmanship.
" " 1 daguerreotype of twin sisters.

Miss Sarah Ensworth, Detroit, 1 worsted handkerchief.
Beecher, Rice & Ketchum, Detroit, 1 piano cover.
" " 1 table cover.
" " 1 pair lace curtains.
" " 1 screen, with frame of worsted work.
Mrs. J. J. Rinsched, " 1 picture, embroidery.
Mrs. O. N. Edgerton, " 1 ottoman cover.
Miss Kennedy, " 2 tidies, needlework.
" " 1 leatherwork picture frame.
J. Schwinden, " 23 photograph daguerreotypes on paper.
J. Schwinden, " 3 daguerreotypes on plate.
" " 4 window shades.
Mrs. Mary Ann Carpenter, Southfield, needleworked yoke and sleeves
" " " shirt bosom.
Mrs. J. Starkweather, Ypsilanti, " collar.
" " " handkerchief.
Mrs. R. Chope, Detroit, 2 shell boxes.
Catharine McKim, Ypsilanti, needleworked handkerchief.
Mrs. Samuel Lothrop, Adrian, 2 worked collars.
Miss M. Aspinall, Detroit, 1 crochet bureau cover.
" " 1 crochet bed spread.
Mrs. L. B. Willard, " 1 worked collar.
Mrs. J. B. Bloss, " 1 needleworked shawl.
Wm. Shulthies, " marble statue of Lamb.
Miss M. Aspinall, " 1 bed spread.
Mrs. J. P. Richardson, Pontiac, 1 pair lamp mats.
Mrs. J. Newton, " 1 vegetable lamp mat.
Miss Marcella Richardson, Pontiac, collection of paintings in water colors.
" " painting of a bird "
Miss Marcia Richardson, " " group of roses "
Mrs. W. R. Searing, Detroit, 1 crochet tidy.
Miss Rose Beaubien, " 1 wax doll.
Miss Catharine Hawkins, " 2 pieces needlework.
Mrs. A. Andrews, Detroit, 2 wire frames with artificial flowers and fruit.
Mrs. Wm. Cook, " specimen of worsted work.

Mr. Stevens, Detroit, 18 specimens of graining on wood.
H. Hague, Jackson, " " "
O. K. Moore, Coldwater, specimen of animal painting.

FRUITS, FLOWERS AND VEGETABLES.

Wm. Balls, Detroit, collection of cut flowers.
" " 12 dissimilar dahlias.
" " collection of phloxes.
" " " petunias.
" " " pansies.
" " large bouquet of dahlias.
" " floral ornament, diamond of dahlias.
" " collection of culinary vegetables.
" " 12 long blood beets.
" " 12 turnip rooted beets.
" " 12 Altringham carrots.
" " 12 hollow crowned parsnips.
" " 12 stalks giant celery.
" " 6 purple vegetable eggs.
" " ½ peck red seedling onions.
" " ½ peck round tomatoes.
" " 12 roots salsify.
" " ½ peck Lima beans.
John Ford, " collection of dahlias.
" " 12 dissimilar "
" " 1 specimen "
" " collection verbenas.
" " " green house plants.
" " " German asters.
" " " pansies.
" " 1 hand bouquet, round.
" " " " flat.
" " collection of cut flowers.
" " 2 Persian melons.

John Ford, Detroit, 6 vegetable eggs.
" " 4 nutmeg "
" " collection culinary vegetables.
" " 6 heads cabbage.
" " 12 parsnips.
" " 3 crook neck squashes.
" " ½ peck tomatoes.
" " 1 peck white turnips.
" " ½ peck Lima beans.
" " 1 peck sweet potatoes.
" " 6 stalks rhubarb.
" " collection of peppers.
H. H. Leroy, " 1 peck quinces.
" " 1 dish "
Harvey King, " 12 sugar beets.
" " 12 blood beets.
" " 12 mangel wurtzel.
" " 12 carrots.
James Bayley, Big Beaver, apples, northern spy.
" " Esopus Spitzenburg.
" " Boston Russet.
" " English Russet.
" " Common Pippin.
" " Rhode Island Greening.
" " Michæl Henry Sweeting.
" " English Streak.
" " Lady Washington.
" " Rochester Greening.
" " Tolman Sweeting.
" " Red Pearmain.
" " Swaar.
" " Gilliflower.
" " 20 oz. Pippin.
" " Winter Greening.
Robert R. Briggs, Romeo, 12 carrots.
" " 1 peck white turnips.
" " 1 peck red top turnips, English.

Robert R. Briggs, Romeo, 1 peck seed potatoes, "sand lake."

" " 1 peck Carter potatoes.

Robert R. Briggs, Romeo, 1 autumnal squash.

" " 12 sugar beets.

" " collection culinary vegetables.

D. Cook, Jackson, 60 varieties winter apples, viz: Belmont, Campfield, Fort Miami, Gilpin, Golden Bell, Court of Wick, Rhode Island Greening, Jonathan, Winesap, Red Canada, Polly Bright, Pryer's Red, Mother, Rambo, Western Spy, Rome Beauty, Sturmer Pippin, English Russet, Roxbury Russet, American Beauty, Swaar, Northern Spy, Tolman Sweet, Green Sweeting, Wells Sweeting, Vandervere, Willow Twig, Wagener, Mouse, Pomme Gris, Red Cedar, Minister, Wells Apple, Dutch Mignone, American Pippin, Clark's Sweeting, Ortley Pippin, Warner Russet, Golden Russet, Golden Pippin, Yellow Bellflower, Flushing Spitzenburg, Esopus Spitzenburg, Springer's Seedling, Fink's Seedling, Danver's Winter Sweet, Ladies' Sweeting, Peck's Pleasant, Tewksbury Winter Blush, Victuals & Drink, Turn of the Lane, Herefordshire Pearmain, Green Newtown Pippin, Canada Reinette, Yellow Newtown Pippin, American Golden Russet, Black Gilliflower, Seek-no-further, Baldwin, Jones' Transparent.

D. Cook, Jackson, 40 varieties autumn apples, viz: Boxford, Beauty of Kent, Fall Pippin, Hawthornden, Hawley, Yellow Ingestrie, Ribston Pippin, Lowell, Keswick Codlin, Chapman's Orange, Maiden Blush, Dyer, Cooper, Jersey Sweet, Lyscom, Ramsdell's Sweet, Ross Nonpareil, Flower of Genesee, Hubbardston Nonsuch, Late Strawberry, Pomme d' Neige, Fall Greening, Lyman's Pumpkin Sweet, Sweet Russet, Twenty-ounce Apple, Twenty-ounce Pippin, Drap d' Or, Golden Reinette, Autumn Pearmain, Seek-no-further, Red Siberian Crab, Yellow Siberian Crab, Large Yellow Crab, Elliott's Beautiful Crab, Golden Beauty Crab, Chinese Double Flowering Crab.

D. Cook, Jackson, 12 varieties summer apples, viz: Benoni, Orange Pippin, Niack Pippin, Sweet Bough, Sops of Wine, American Summer Pearmain, Yellow Harvest, Early Joe, Early Chandler, Early Strawberry, Williams' Favorite, Summer Greening.

Mrs. C. F. Haskell, Monroe, 18 varieties preserved fruits.

C. B. Seymour, Scio, 1 peck table potatoes, "Jenny Lind."
John S. Bagg, Detroit, 2 black Spanish water melons.
" " 2 Skillman's netted nutmeg melons.
" " 4 nutmeg melons.
" " 2 early Christiana musk melons.
" " 12 winter apples.
J. F. Nichols, Detroit, 2 varieties autumn apples.
Prince Bennett, Ypsilanti, 21 varieties winter apples.
" " 4 varieties autumn apples.
" " 4 varieties summer apples.
" " 6 autumn pears.
D. Boynton, Detroit, 1 peck white June potatoes.
John Hatcher, Detroit, 2 plates grapes.
Chas. A. Jefferies, Dexter, 1 bushel potatoes.
" " 1 " "Lady finger."
" " 1 " "Wild Mexican."
" " 1 doz. long blood beets.
" " 1 doz. turnip rooted beets.
" " 1 doz. yellow beets.
Alanson Fairfield, Livonia, ½ peck yellow onions.
" " ½ peck red onions.
David Clarkson, Northville, 15 varieties winter apples.
" " 5 varieties autumn apples.
S. Bowerman, Detroit, 130 varieties apples.
Wm. Maiden, Redford, 13 varieties winter apples.
John Kirk, Detroit, 1 peck yellow turnips.
Mrs. J. Palmer, Detroit, 1 dish Isabella grapes.
" " 1 dozen quinces.
S. B. Malcomb, Cleveland, Ohio, Stowell's evergreen sweet corn.
" " 12 row sweet corn.
" " 12 blood beets.
" " 12 turnip rooted beets.
" " 6 heads cabbage.
" " 12 long carrots.
" " 12 parsnips.
" " 12 heads celery.
" " vegetable eggs.

S. B. Malcomb, Cleveland, Ohio, white onions.
" " yellow do
" " 1 peck table potatoes.
" " autumnal marrow squash.
" " ½ peck tomatoes.
" " 12 roots salsify.
" " white turnips.
" " yellow do
" " ½ peck Lima beans.
" " 1 peck sweet potatoes.
" " collection of peppers.
" " water melons.
" " musk do
" " pumpkins.

E. C. Roberts, Salem, 1 peck seedling potatoes, 2 years growth.
" " " 4 "
" " 1 peck table potatoes, blue pink eye.
" " " " russet.
" " " " for sets.
" " 1 peck seedling potatoes, 4 years growth.

Thomas Hopson, Hamtramck, 12 stalks white solid celery.
" " 12 sugar beets.
" " ½ peck Lima beans.
" " ½ peck tomatoes.
" " 5 varieties apples.
" " 3 " pears.

Thomas G. Angel, Detroit, collection of pears.
" " native grapes grown in open air.
" " 4 nutmeg melons.
" " 4 Borneo "
" " 4 green flesh melons.
" " ½ peck red tomatoes.
" " ½ peck yellow tomatoes.
" " 12 blood beets.
" " 12 short horn carrots.
" " 12 orange "
" " 12 Altringham "

Thomas G. Angel, Detroit, 30 varieties verbenas.
G. R. Hurd, Monroe, 1 peck table potatoes.
Wm. H. Lyster, Utica, 1 peck "
" " 12 blood beets.
" " 12 carrots.
" " 12 parsnips.
Mrs. G. W. Collins, Farmington, 1 peck quinces.
Sam'l L. Millis, Detroit, 7 varieties apples.
" " ½ peck Melocoton peaches.
S. B Noble, Ann Arbor, specimens winter apples.
A. Melvin, Detroit, Flemish Beauty pears.
David Clarkson, Northville, 12 specimens autumn apples.
A. Hendrix, Redford, specimens of hops.
John C. Williams, Greenfield, 38 varieties apples.
" " 4 nutmeg melons.
Mrs. Caroline Casky, Pontiac, 1 peck quinces.
J. W. Dickinson, Hillsdale, 19 varieties winter apples.
Albert Terry, Rochester, 18 varieties autumn apples.
" " 2 " pears.
" " 1 peck quinces.
" " 5 varieties winter apples.
R. L. Compton, Dearborn, 12 blood beets.
James Dougall, Windsor, C. W., 58 varieties pears.
C. A. Chipman, Rochester, 26 varieties apples, viz: Baldwin, Baltimore, Dutch Mignone, Swaar, Roxbury Russet, Rhode Island Greening, Jonathan, Esopus Spitzenburg, Northern Spy, White Bellflower, Twenty Ounce Pippin, Cabashea, Green Newtown Pippin, Seek-no-further, Golden Russet, Calville, Egg Sweet, Pound Sweet, Pennock's Red Winter, Snow, Twenty Ounce Apple, Spur Sweet, Fall Pippin, and three varieties name unknown.
Wm. Adair, Detroit, collection of pears.
" " " dahlias.
" " 12 dissimilar "
" " one specimen dahlia.
" " orange water melon.
" " 3 cabbages.
" " collection of roses.

Wm. Adair, Detroit, flat bouquet.
" " round do
" " collection green house plants.
G. L. Stout, Troy, 1 peck table potatoes.
" " 1 peck white turnips.
" " ½ peck yellow onions.
" " 12 parsnips.
" " 12 orange carrots.
" " 12 short red carrots.
" " 12 blood beets.
" " 12 sugar do
" " 3 pumpkins.
" " 1 peck quinces.
" " 6 autumn pears.
" " 12 winter apples, swaar.
" " 3 seedling winter apples.
" " 12 autumn apples.
" " 6 autumn pears.
" " ½ peck tomatoes.
Wm. Adair, Detroit, collection Verbenas.
Hubbard & Davis, Detroit, 12 blood beets.
" " 12 parsnips.
" " 12 stalks celery.
" " 1 peck seedling potatoes.
" " 1 peck table potatoes.
" " 2 autumnal marrow squash.
" " ½ peck tomatoes.
" " 6 stalks rhubarb.
" " 12 ears Stowell's evergreen sweet corn.
" " 3 common squash.
" " collection cut flowers.
" " " dahlias.
" " 12 dissimilar dahlias.
" " collection of roses.
" " " of verbenas.
" " seedling "
" " collection of indigenous flowers.

Hubbard & Davis, Detroit, round bouquet.
" " flat "
" " collection of winter apples.
" " " autumn "
" " " summer "
" " seedling winter apples.
" " collection of pears.
" " 2 varieties water melons.
Mrs. Thomas Palmer, Detroit, royal Muscadine grapes.
" " Isabella "
Abraham Lapham, " 2 citron melons.
George Wheaton, Detroit, 6 varieties pears.
" " 2 " apples.
Wm. Lowes, Birmingham, 12 ruta baga turnips.
Wm. B. Smith, Detroit, 2 squashes.
Orson Ingalls, Almont, 3 seedling winter apples.
J. L. Stout, Troy, Damson plums.
" " seedling peaches.
George Crabb, Detroit, 6 drumhead cabbage.
" " 12 early horn carrots.
" " 12 orange "
" " ½ peck yellow onions.
" " ½ peck red do
H. Walker, Detroit, 20 varieties pears.
" " quinces.
" " 12 varieties potatoes,
" " 3 purple vegetable eggs.
" " 1 peck tomatoes.
" " ½ peck Lima beans.
" " 1 dozen silver skin onions.
" " 1 dozen red skin onions.
" " 3 bunches carrots.
" " 3 bunches parsnips.
" " 2 " turnip rooted beets.
" " 1 " vegetable oysters.
" " 6 heads cabbage.
" " collection of cut flowers.

H. Walker, Detroit, 1 round bouquet.
Wm. Balls, " collection of dahlias.
" " dahlia fan.
" " 1 peck table potatoes.
" " 6 stalks seedling rhubarb.
" " 4 varieties carrots.
" " 4 nutmeg melons.
Mrs. C. Jenks, " 4 varieties balsamines.
" " 1 rose geranium.
" " 1 lemon tree.
C. W. Winans, " 1 Long Island water melon.
J. L. Stout, " 12 turnip rooted beets.
Henry Fowler, " 12 heads celery.
Benj. Pierson, Livonia Centre, 10 varieties winter apples.
" " 2 " autumn "
" " 3 seedling autumn apples.
" " lot turnips.
A. Eames, Kalamazoo, 2 varieties autumn apples.
" " 8 " winter "
J. B. Springer, Livonia Centre, 12 turnip rooted beets.
" " 1 peck table potatoes.
" " ½ peck yellow onions.
Jeremiah Brown, Battle Creek, 1 peck Mexican potatoes.
" " 1 peck Mashanock "
" " 2 water melons.
" " 4 musk "
" " 12 carrots.
" " 6 stalks rhubarb.
Mrs. J. Brown, " collection of dahlias.
" " " of indigenous flowers.
" " " of Petunias.
" " seedling "
" " collection of verbenas.
" " seedling verbenas.
" " collection of phloxes.
" " 2 baskets of flowers.
" " 1 round bouquet.

Mrs. J. Brown, Detroit, 1 flat bouquet.
J. L. Stout, Troy, 4 varieties table potatoes.
" " 2 " turnips.
" " 3 seedling winter apples.
Mrs. C. Jenks, Detroit, 1 nutmeg geraneum.
" " 1 monthly rose.
" " 1 tea rose.
Mrs. E. P. Bradner, Redford Centre, melon basket of petunias.
E. R. Post, Detroit, 6 heads cabbage.
M. H. Webster, Detroit, turtle soup beans.
Hiram Walker, Detroit, white sweet water grapes.
" " Tuscarora sweet corn.
John Roberts, " 7 varieties foreign grapes, grown under glass.
Mrs. J. Brown, Battle Creek, 6 varieties pansies.
" " collection cut flowers.
J. W. Keith, Trenton, collection of peaches.
Hubbard & Davis, Detroit, 2 citron melons.
" " 1 peck potatoes.
" " 2 cheese pumpkins.
Mrs. E. C. Walker, " 1 floral design.
Wm. Adair, " collection cut flowers.
" " " of roses.
Henry Fowler, " 12 heads cabbage.
M. S. Gillet, Port Huron, 10 varieties pears.
John Jenkins, Niles, 1 bunch paw paws.
James Waterfield, Eagle Lake, sweet turnips.
Mark Flannigan, Detroit, mangel wurtzel.
George Crabb, " early horn carrots.

GRAIN, FLOUR AND SEEDS.

R. Gillespie, Detroit, 1 barrel flour.
T. H. Parker, " 1 bushel timothy seed.
" " 1 bushel clover seed.
H. L. Paddock, Pontiac, 1 bbl. flour.

Thomas Hall, Greenfield, 12 ears white seed corn.
" " 12 ears yellow do
D. O. & W. S. Penfield, Detroit, 2 cases garden seeds.
Bainbridge & Haskins, " 1 bbl. flour.
Chas. A. Jefferies, Dexter, yellow seed corn, "King Phillip."
" " white flint seed corn.
" " white flint and Dutton mixed, seed corn.
Prince Bennett, Ypsilanti, 2 bushels white beans.
" " 2 bushels marrowfat peas.
Thomas Hopson, Hamtramck, 2 bushels Mediterranean spring wheat.
" " 2 bushels eight row Dutton corn.
Chas. A. Jefferies, Dexter, red blaze seed corn.
John Kirk, Dearborn, 2 bushels white oats.
" " 2 " black do
J. D. Williams, Dexter, 2 bushels white flint wheat.
Mrs. F. Leslie, Dearborn, 1 loaf corn bread.
Amos Mead, Mead's Mills, 12 ears early Dutton seed corn.
Mrs. M. A. McClatchy, Detroit, 2 loaves wheat bread.
Owens & Barns, " 1 box Boston crackers.
" " 1 box soda crackers.
" " " lemon do
" " " butter do
" " 2 loaves bread.
Mrs. John Ask, " 1 pan of biscuits.
" " 1 loaf bread.
" " 1 loaf twisted bread.
Wm. Lowes, Birmingham, 2 loaves salt rising bread.
" " 1 pan " buiscuit.
" " 1 bushel timothy seed.
T. F. Gerls, Troy, 1 bushel white oats.
J. L. Stout, Troy, 2 bushels timothy seed.
" " 12 ears yellow seed corn.
J. Curtis, Disco, 2 bushels yellow corn.
" " 2 bushels white corn.
" " 12 ears white seed corn.
" " 12 ears yellow seed corn.
Mrs. Ferrand Gaines, Dearborn, 2 loaves milk rising bread.

Mrs. Ferrand Gaines, Dearborn, 1 loaf corn meal bread.
Royce, Sprague & Williams, Detroit, 4 loaves patent bread.
" " 4 loaves machine bread.
" " 1 box butter crackers.
" " 1 box soda crackers.
John Johnson, " 1 pan of buscuit.
" " 1 loaf bread.
Mrs. H. Walker, " 2 loaves yeast bread.
" " 2 loaves salt rising bread.
" " 1 loaf corn bread.
J. B. Springer, Livonia Centre, 2 bushels white oats.
" " 12 ears white seed corn.
J. D. Williams, Dexter, 2 loaves bread.
S. A. Randall, Brooklyn, 2 bushels yellow dent corn.
" " 2 bushels white dent corn.
" " 2 bushels yellow corn.
" " 12 ears yellow dent seed corn.
" " 12 ears white dent seed corn.
" " 12 ears yellow seed corn.
M. J. Cook, Detroit, 1 barrel flour.
" " sample corn meal.

MISCELLANEOUS ARTICLES.

K. C. Barker & Co., Detroit, 1 wrought iron safe with patent bank lock.
E. L. Evans, Easton, Pa., India rubber washing machine.
Wm. Phelps & Bro., Detroit, 1 child's velocipede.
" " 1 baby walker.
" " 1 baby jumper.
" " 1 case tin toys.
" " 1 case toys and fancy goods.
O. Bellows & Co., " 1 rubber piano cover.
" " 2 rubber table covers.
" " 2 rubber overcoats.
" " 1 bale pure rubber.
" " 2 pieces pure gutta percha.

O. Bellows & Co., Detroit, 1 rubber horse cover.
" " 2 pair rubber pants.
" " 2 rubber hats.
" " 1 rubber pail.
T. S. Balsley, Pittsburg, Pa., 4 cream jars, 2, 6, 8 and 10 gallons.
" " 2 butter jars, 1 and 2 gallons.
" " 2 Michigan pots 1 and 5 gallons.
" " 3 churns, 4, 4 and 6 gallons.
" " 4 preserves, 1, 1, 2 and 3 gallons.
" " 4 milk pans, ½, 1, 1½ and 2 gallons.
" " 3 covers.
James Flower & Bro., Detroit, collection of brass work.
J. H. Wineman, " 1 bird cage and 3 birds.
" " one globe and 5 gold fish.
John Essick, " 1 bottle grape wine.
Wm. Shulthies, Detroit, 3 marble mantels.
" " 1 marble monument.
James Fenton, " 1 machine for tallying lumber.
Croul Brothers, " 1 pair African cattle horns.
John Velta, " lot common and fancy soap.
J. Schonacker, " 1 small model church.
E. P. Tenny, Racine, Wisconsin, combined manifold electro conductor.
" " copper " "
" " silver plated and platina tipped points for manifold electro conductor.
E. J. Wooley, Detroit, Lillie's patent fire and burglar proof safe.
H. W. Brown, Pleasant Mount, Pa. Lempcke's Patent Windmill.
Mrs. P. Klein, Detroit, 1 case hair ornaments.
A. S. Sherwood, " 1 case Sherwood's improved points for lightning conductors.
D. T. Barrett, Detroit, 2 embroidered shirts.
" " 2 plain do
" " 1 linen do
" " 1 ruffled do
" " 1 flannel do
S. W. Patchen, " patent weather strips for doors.
" " patent window springs.

Loomis, Wright & Co., Cleveland, Ohio, 1 case dentistry.
McDonald & Finley, Detroit, 1 case book binding.
J. W. Hodges, " 1 mineral water filter.
" " 1 water cooler.
" " 2 sets toilet ware.
" " 1 planished tin tea pot.
Hayden & Fairbanks, " parlor stoves.
" " cook stoves.
" " hall do
John B. Wands, " 2 specimens composition roofing.
Mrs. Eliza Morton, " 1 English lace-pillow.
Palmer & Whipple, " 1 bank ledger, full Russia.
" " 4 books re-bound, gilt edge and Turkey morocco.
Wm. W. Howland, Detroit, 1 model of shingle machine.
C. F. Lange, " 2 needle gun rifles.
Frost & Messenger, " 1 curled horse hair mattrass.
" " 1 excelsior do
" " 1 rattan do
" " curled horse hair in rope.
" " excelsior in bale.
Charles Piquette, Detroit, 1 case gold pens.
George Schuler, " 1 coffee clock.
Raymond & Cook, " 1 case books.
A. Walcott, " 20 boards sawed lumber.
" " 15 do dressed.
" " 1 planing machine.
Mrs. S. B. Scott, Toledo, 1 book, practical housekeeper.
Mrs. Fernald, New York, 1 knife and scissors sharpener.
O. D. Hamilton, Rochester, N. Y., 2 boxes royal erasive soap.
D. O. & W. S. Penfield, Detroit, 6 corn baskets.
" " 6 coal shovels.
" " 6 monkey wrenches.
" " 1 sample pump chain.
Horace Hallock, " 1 silk cane umbrella.
John Pickett, Livonia, 1 washing machine.
W. E. Peters, Detroit, 1 small marble monument.

W. E. Peters, Detroit, 2 marble slabs.

J. B. Johnson, Cleveland, Ohio, 1 Lake Huron grindstone.

Scott & Hedges, Cincinnati, Ohio, 1 dianonometer, for testing the draught of plows, etc.

E. Geisert, New York, 1 cage Paris birds.

" " 1 macaw.

Duryee & Forsyth, Rochester, N. Y., 1 bank safe.

" " 1 fire king safe.

" " 1 2000 lbs. lever scale.

" " 1 dock scale.

" " 1 No. 4 railroad manifest press.

" " 1 No. 3 copying press.

" " 1 36 lb. scale plate.

" " 1 240 lb. P. C. scale.

" " 1 No. 4 truck.

C. & J. Jenks, Detroit, 1 No. 5½ engine lathe.

" " 2 jail padlocks.

" " 1 safe.

Mrs. Sam'l L. Millis, Detroit, 2 glass jar puzzles.

" " 1 bottle elderberry wine 1 year old.

" " 1 bottle wild grape wine 2 years old.

" " 1 do do 3 do

D. R. Prindle, East Bethany, N. Y., Prindle's self-sustaining portable or hurdle fence.

A. M. Bodwell, Ann Arbor, 1 improved bran duster.

T. Duel, Detroit, 1 match splint machine.

Thos. H. Armstrong, " 2 cases Odd Fellow's regalia.

" " 1 case Masonic regalia.

" " 1 case Odd Fellows jewels.

Eagle & Elliott, " 1 sole leather trunk.

" " 1 silk rubber coat.

S. B. Corbin, Constantine, 1 Goodwin's centre vent, combination water wheel.

Lewis Benham, Nangatuck, Ct., 1 spoke machine for turning irregular forms.

E. P. Barrett, Detroit, 1 bird cage and two birds.

M. J. Cook, " 1 bottle indellible ink.

M. J. Cook, Detroit, 1 bottle writing fluid.

M. H. Webster, Detroit, 2 bronze lions.

" " 1 painted hound.

" " 2 garden vases.

" " 1 cooking stove "Young America."

Wm. Brown, Battle Creek, thresher and separator.

" " 1 eight horse power.

" " 1 geared jack.

J. H. Allison, Detroit, 1 case gold pens, chronometer and diamond work.

S. T. Lord, " self-setting saw mill, Doyson's blocks.

A. Shely, " 1 M sawed shingles in 4 packs.

Chas. R. Milts, " specimen fire and water proof roofing.

A. Blackie, St. Clair, 1 single and 2 double lath mills and bolting machine.

Blackie & Clark, St. Clair, 2 double operating lath mills.

Lansing & Anderson, Detroit, 4 fire annihilators.

J. R. Cunningham, " 1 model steamboat.

Edmunds & North, " 2 bundles clear pine siding.

" " 2 bundles whitewood do

" " 1000 feet pine flooring, grooved and tongued.

Darwin White, Detroit, 2 snatch blocks.

" " 2 iron strap blocks.

A. R. Swift, " 1 twenty-five horsepower steam engine.

E. Wyncoop, " 1 self-heating smoothing iron.

John Daines, Birmingham, 10 feet drain tile.

B. G. Stimson & Co., Detroit, 1 low pressure engine.

A. Kendall, Cleveland, Ohio, 1 shingle machine, riving and shaving.

T. A. Wilkinson, Detroit, 1 case engraving in stone and metal seals, lapidary work.

M. H. Webster, Detroit, 1 Resor's patent globe furnace.

Wm. S. Wood, " specimen of native copper and stamp work, from Evergreen Bluff mine.

Peter Rodier, Detroit, 1 small locomotive.

Joseph Northrop, " 5 butcher's cleavers.

M. Allen, " 3 pictorial family bibles.

Mrs. H. Walker, " 1 bottle tomato catsup.

Mrs. H. Walker, Detroit, 1 bottle cider vinegar.
Wm. Weyburn, " 1 Remington's patent coffee pot.
Henry Metz, " Metz' composition fire proof roof.
" " 1 fountain.
George White, " plumbing work.
Andrew Bain, Ridgeway, Davis' patent platform bee hive.
Wm. Snow, Detroit, 6 rolls wire cloth.
" " 7 bird cages.
D. Curtis, Romulus, ½ square whitewood shingles, cut by machine.
George N. Bolles, Kalamazoo, 1 cross cut sawing machine and carriage.
Z. Caswell, Birmingham, 1 cross cut saw mill for sawing wood from the log.
Z. Caswell, Birmingham, 1 two or four horse power.
" " 1 cider mill and corn sheller.
C. & J. Jenks, Detroit, 1 brass, passenger car, parlor and ship lamp.
No. 8 Continental Fire Co., Detroit, fire engine, No. 8.
A. Marsh, " 1 improved spring truss.
John Hatcher, " 1 cage and 7 birds.
A. Van Brunt, Adrian, 9 cans printing ink.
Benj. Hefner, Patterson, N. J., 1 model in lithograph of locomotive.
L. Sprague, Wooster, Ohio, Kedzie's rain or river water filterer.
Fred. Eberts, Detroit, 1 cage of canary birds.
Charles Wall, " 1 Chinese Mother of Pearl card basket.
N. L. Avery, Grand Rapids, 1 specimen ground plaster.
" " 1 specimen polish rock plaster.
T. Duel, Detroit, 1 apple parer, corer and slicer.
D. Walter Stone, " 1 actual measurement transfer.
C. A. Trowbridge, " 3 bars charcoal hammered iron, from Collin's mine.
Wm. S. Wood, Detroit, specimen of native silver ore from Evergreen Bluff mine.
Mrs. W. W. Murphy, Jonesville, 1 bottle currant wine.
A. Worden, Ypsilanti, 3 joints stove pipe.
Jackson & Wiley, Detroit, 1 steam engine.
R. E. Roberts, " water fountain 9 jets.
R. L. Barrowman, " 1 bottle currant wine.
Cowing & Co., Seneca Falls, N. Y., 2 Fire engines.

E. O. Crittenden, Marshall, 1 smut machine.

Morrison & Concklin, Detroit, 1 case jewelry and silver ware.

Mrs. E. F. Haskell, Monroe, collection preserved fruits.

" 1 bottle currant wine.

REPORTS

OF VIEWING COMMITTEES AT THE SEVENTH ANNUAL FAIR, HELD AT DETROIT, OCTOBER SECOND, THIRD, FOURTH AND FIFTH, 1855.

DIVISION A—CATTLE.

CLASS I. & III.—SHORT HORNS AND HEREFORDS.

The committee on class one, short horn cattle, respectfully report, that they have found much difficulty in awarding the premiums on the animals that have been presentad to their attention, as a great many superior animals were presented, that were worthy of premiums. A great many animals were passed by which were worthy, but having selected the most worthy, we have awarded them the premiums.

Your committee would here state, that in their opinion, the exhibition will compare well with any other State Agricultural Society's exhibition.

Your committee think that several cows were exhibited as breeders, that should have been entered in the class of fat cattle, on account of their being too fat for breeding.

Bulls five years old or over.

No. 54. S. W. Dexter, Dexter, bull 5 years old, 1st premium, Silver Medal and $12 00

No. 164. C. Fuller & Co., Plymouth, bull 5 years old, 2d premium, ... 12 00

No. 163. A. S. & M. L. Brooks, Northville, bull 5 years old, Diploma.

Bulls 3 years old and under 5—none worthy.

Bulls two years old.

No. 135. John Starkweather, Ypsilanti, bull 2 years old, 1st premium, ... Silver Medal and $8 00
No. 134. John Starkweather, Ypsilanti, bull 2 years old, 2d premium, ... 8 00
No. 230. D. F. Dwight, Detroit, bull 2 years old, 3d premium, 7 00
No. 61. D. M. Uhl, Ypsilanti, bull 1 year old, 1st premium, Butter Knife and 8 00
No. 103. Crippen & Freeman, Coldwater, bull 1 year old, 2d premium, ... 8 00
No. 162. M. L. Brooks, Northville, bull 1 year old, 3d prem., 7 00
No. 143. C. A. Jefferies, Dexter, bull calf, 1st premium, Transactions and 6 00
No. 34. Silas Sly, Plymouth, bull calf, 2d premium, ... 5 00
No. 187. L. Lee, Armada, " 3d do 4 00

Cows.

No. 100. Crippen & Freeman, Coldwater, cow 7 years old, 1st premium, Silver Medal and $10 00
No. 101. Crippen & Freeman, Coldwater, cow 8 years old, 2d premium, ... 10 00
No. 156. M. L. Brooks, Northville, cow 6 years old 3d prem., 8 00
No. 158. " " cow 4 years old, 1st premium, Silver Medal and 10 00
No. 51. James Flower, Armada, cow 4 years old, 2d premium, 10 00
No. 161. M. L. Brooks, Northville, cow 3 years old, 3d prem., 8 00
No. 110. A. Wilkins, Lima, heifer 2 years old, 1st premium, Butter Knife and 8 00
No. 112. C. A. Jefferies, Dexter, heifer 2 years old, 2d premium, ... 8 00
No. 59. D. M. Uhl, Ypsilanti, heifer 2 years old, 3d premium, 7 00
No. 53. Silas Sly, Plymouth, heifer 1 year old, 1st premium, Transactions and 7 00
No. 111. Asa Williams, Lima, heifer 1 year old, 2d premium, 6 00
No. 142. C. A. Jefferies, Dexter, heifer 1 year old, 3d prem., 5 00
No. 60. D. M. Uhl, Ypsilanti, heifer calf, 1st premium, ... 6 00
No. 36. Silas Sly, Plymouth, heifer calf, 2d premium, ... 5 00

No. 229. W. White, Birmingham, Hereford Bull, 1st premium, Silver Medal and.....$12 00

ROBERT L. ROME,
WM. WHITFIELD,
RUSSELL BISHOP.
Committee.

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CLASS II. & IV.—DEVON AND AYRSHIRE.

The Committee on Devons, after making a thorough examination in this class, beg leave to state that they are favorably impressed with the superiority of the animals collectively, almost all of which are from the herds of eminent breeders in adjoining States, and show, from the several animals on exhibition that much care has been bestowed in their selection. As a class they compare well with animals of this breed owned in much older States.

Your Committee would suggest that the breeding of this class of cattle is of much pecuniary interest to our State, as this breed is now conceded by competent judges to excel all others for draught purposes; the oxen being almost equal to horses for farming purposes generally. They are kind feeders, and their agility enables them to keep in good condition on short pasturage; they withstand long and rigorous winters with impunity and in this season are more hardy than any animals of other breeds that your Committee are familiar with. Their color is uniformly red, and in this respect the oxen are easily matched, and by connoiseurs this color is preferred to all others.

The Committee beg leave to state that in their judgment, the bull "Osceola" is superior to any animal in his class on the ground, but is ineligible for a first premium, he having in 1854 received the highest award of the Society. He is an animal of rare symmetry and beauty, and is, in the eyes of the Committee, the best specimen of a North Devon that ever came under their notice.

The Committee acknowledge the good merits of many cows and heifers, and consider the exhibition as a whole, highly creditable to Michigan.

No. 125. H. Eggleston, Litchfield, bull 3 years old, 1st premium, silver medal and $10 00

No. 46. S. Whitmarsh, Ypsilanti, bull 4 years old, 2d premium, 10 00

No. 175. M. & J. Shoemaker, Jackson, bull three years old, 3d premium, ... 8 00

Bulls two years old, none offered.

No. 200. Wm. H. Miller, Moscow, bull, 1 year old, 1st premium, Butter Knife and 8 00

No. 105. C. H. Williams, Coldwater, bull 1 year old, 2d premium, ... 8 00

No. 130. Gideon Stoddard, Litchfield, bull 1 year old, 3d premium, ... 7 00

No. 202. Wm. H. Miller, Moscow, bull calf 3½ months old, 1st premium, Transactions and 6 00

No. 207. Wm. H. Miller, Moscow, bull calf 3½ months old, 2d premium, ... 5 00

No. 126. H. Eggleston, Litchfield, bull calf 4 months old, 3d premium, ... 4 00

No. 195. Wm. H. Miller, Moscow, cow 6 years old 1st premium, Silver Medal and 10 00

No. 176. M. & J. Shoemaker, Jackson, cow, 7 years old, 2d premium, ... 10 00

No. 94. Hiram Mason, Hamburg, cow 3 years old, 1st prem., Silver Medal and 10 00

No. 129. H. Eggleston, Litchfield, cow 3 years old, 2d prem., 10 00

No. 106. C. H. Williams, Coldwater, cow 4 years old 3d prem., 8 00

No. 177. M. & J. Shoemaker, Jackson, heifer 2 years old, 1st premium, Butter Knife and 8 00

No. 95. Hiram Mason, Hamburg, heifer 2 years old, 2d prem., 8 00

No. 198. W. H. Miller, Moscow, heifer 2 years old, 3d prem., 7 00

No. 214. O. W. & G. P. Bennett, Jackson, heifer 1 year old, 3d premium, ... 5 00

No 203. W. H. Miller, Moscow, heifer calf 2 months old, 1st premium, ... 6 00

No. 208. W. H. Miller, Moscow, heifer calf 2½ months old, 2d premium, ... 5 00

No. 174. F. M. Foster, Jackson, heifer calf 7 months old, 3d premium, ... $4 00

AYRSHIRES.—None on the ground.

H. H. NORTON,
Chairman.

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CLASS V.—CROSS OF BLOOD CATTLE.

CLASS 7.—NATIVE CATTLE.

The Committee submit the following report on cross of blood cattle:

No. 167. Wm. Gass, Macomb, bull 5 years old or over, 1st premium, Silver Medal and $12 00

No. 147. Wm. Congdon, Plymouth, bull 5 years old, 2d prem., 12 00

No. 179. B. D. Rogers, Vienna, bull 2 years old, 1st premium, Silver Medal and 10 00

No. 45. M. Fisher, Detroit, bull 1 year old, 1st prem., Butter Knife and 8 00

No. 261. D. C. Blair, Tipton, bull calf, 1st premium, Transactions and 6 00

No. 91. J. B. Arms, Dexter, bull calf, 2d premium, ... 5 00

No. 171. Wm. Gass, Macomb, bull calf, 3d premium, ... 4 00

No. 88. J. B. Arms, Dexter, cow over 5 years old, 1st premium, Silver Medal and 10 00

No. 44. M. Fisher, Detroit, cow over 5 years old, 2d premium, 10 00

No. 191. John C. Williams, cow over 5 years old, 3d premium, 8 00

No. 180. B. D. Rogers, Vienna, heifer 3 years old, 1st prem., Silver Medal and 10 00

No. 262. D. C. Blair, Tipton, heifer 3 years old, 2d premium, 10 00

No. 181. B. D. Rogers, Vienna, heifer 3 years old, 3d prem., 8 00

No. 145. C. A. Jefferies, Dexter, heifer 2 years old, 1st prem., Butter Knife and 8 00

No. 170. Wm. Gass, Macomb, heifer 2 years old, 2 premium, 8 00

No. 149. F. W. Backus, Detroit, heifer 1 year old, 3d prem., 5 00

No. 90. J. B. Arms, Dexter, heifer calf 1st premium, Transactions and 7 00

No. 146. C. A. Jefferies, Dexter, heifer calf, 2d premium, ... 6 00

No. 138. John Starkweather, Ypsilanti, heifer calf, 3d prem., 5 00

NATIVE CATTLE.

No. 227. Calvin A. Green, Troy, bull 2 years old, 3 premium, $4 00
No. 48. J. H. Benton, Clinton, bull calf, 1st premium, Transactions and 5 00
No. 194. D. Thompson, Detroit, cow over 5 years old, 1st premium, Silver Medal and 10 00
No. 38. Silas Sly, Plymouth, cow over 5 years old, 2d prem., 8 00
No. 218. O. W. & G. P. Bennett, Jackson, heifer 3 years old, 2d premium, ... 7 00
No. 47. J. H. Benton, Clinton, heifer 3 years old, 3d premium, 5 00
No. 193. D. Thompson, Detroit, cow over 5 years old, Diploma.

M. FISHER,
Chairman.

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CLASS VI.—CROSS BETWEEN BLOOD AND NATIVE.

The committee on cross of blood and native cattle, having made a careful examination of the stock presented in this class, have decided upon making the following awards:

No. 183. Leonard Lee, Armada, bull 3 years old, 1st premium, Silver Medal and $10 00
No. 264. Thomas Clark, Lapeer, bull 3 years old, 2d prem., 10 00
No. 209. Norton Lapham, Farmington, " 3d do 8 00
No. 226. Calvin A. Green, Troy, bull 2 years old, 1st premium, Silver Medal and 10 00
No. 265. George Clark, Jr., Lapeer, bull 2 years old, 2d prem., 10 00
No. 223. John Common, Roseville, bull 15 months old, 1st premium, Butter Knife and 8 00
No. 232. J. L. Stout, Troy, bull calf 5 months old, 1st premium, Transactions and 6 00
No. 113. Charles Williams, Dexter, bull calf 6 months old, 2d premium, ... 5 00
No. 217. O. W. & G. P. Bennett, Jackson, bull calf 4 months old, 3d premium, ... 4 00
No. 108. John Price, Romeo, bull calf 4 months old, ... Diploma.

No. 63. David M. Uhl, Ypsilanti, cow 5 years old, 1st premium, Silver Medal and $10 00
No. 62. David M. Uhl, Ypsilanti, cow 6 years old, 2d prem., 10 00
No. 64. " " cow 3 years old, 1st premium, Silver Medal and 10 00
No. 234. J. L. Stout, Troy, cow 3 years old, 2d premium, .. 10 00
No. 236. J. S. Tibbitts, Plymouth, cow 3 years old, 3d prem., 8 00
No. 65. David M. Uhl, Ypsilanti, heifer 2 years old, 1st premium, Butter Knife and 8 00
No. 246. S. A. Randall, Brooklyn, heifer 2 years old, 2d premium, ... 8 00
No. 233. J. L. Stout, Troy, heifer 1 year old, 1st premium, Transactions and 7 00
No. 39. Silas Sly, Plymouth, heifer 1 year old, 2d premium, . 6 00
No. 139. John Starkweather, Ypsilanti, heifer 1 year old, 3d premium, ... 5 00
No. 192. John C. Williams, Greenfield, heifer calf 4 months old, 1st premium, ... 6 00
No. 140. John Starkweather, Ypsilanti, heifer calf 6 months old, 2d premium, ... 5 00
No. 238. J. S. Tibbitts, Plymouth, heifer calf 7 months old, 3d premium, ... 4 00

All of which is respectfully submitted.

ISAAC COX,
G. W. DRYER,
D. B. RORISON.
Committee.

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CLASS VIII.—WORKING OXEN.

The Committee on working oxen report as follows:

No. 114. C. W. Green, Farmington, 1 yoke working over 4 years old, 1st premium, Silver Medal and $10 00
No. 119. B. P. Wixom, Farmington, 1 yoke working oxen over 4 years old, 2d premium, ... 10 00

No. 42. R. D. Reed, Wayne, 1 yoke working oxen over 4 years old, 3d premium, ... $8 00

No. 124 C. W. Green, Farmington, 5 yoke working oxen from one county, 1st premium, ... $20 00

No. 240 C. A. Green, Troy, 5 yoke working oxen from one county, 3d premium, ... 15 00

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CLASS IX.—WORKING STEERS.

No. 239. Clement Pearsall, Big Beaver, 1 yoke grade steers 4 years old, 1st premium, Butter Knife and $10 00

No. 155. D. G. Brown, Nankin, 1 yoke grade steers 4 years old, 2d premium, American Cattle Doctor and 8 00

No. D. M. Uhl, Ypsilanti, 3 yoke grade steers 4 years old, 1st premium, ... 10 00

No. 141. John Starkweather, Ypsilanti, 3 yoke grade steers 4 old, 2d premium, Diseases of Animals and 7 00

No. 67. D. M. Uhl, 1 yoke grade steers 3 years old, 3d premium, Transactions and 5 00

No. 68. D. M. Uhl, Ypsilanti, 1 yoke grade steers 2 years old, 1st premium, ... 6 00

No. 69. D. M. Uhl, Ypsilanti, 1 yoke grade steers 2 years old, 2d premium, ... 4 00

No. 118. Caleb Sprague, Farmington, 1 yoke grade steers 2 years old, 3d premium, Transactions and 2 00

No. 263. O. F. Colegrove, Norville, 1 yoke grade steers 1 year old, 1st premium, ... 5 00

No. 87. J. W. Dickinson, Hillsdale, 1 yoke grade steers 1 year old, 2d premium, ... 3 00

No. 92. J. B. Arms, Dexter, 1 yoke grade steers 1 year old 3d premium, ... 2 00

No. 114. C. W. Green, Farmington, 1 yoke trained cattle, 1st premium, ... 10 00

No. 115. C. W. Green, Farmington, 1 yoke trained cattle, 2d premium, ... 7 00

No. 263. O. F. Colegrove, Norville, 1 yoke trained cattle, 3d premium, ... $3 00

All of which is respectfully submitted.

NORMAN ALLEN,
LEVI COOK,
GEORGE W. COLLINS,
Committee.

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CLASS X.—FAT CATTLE.

The committee on fat cattle report as follows:

No. 190. Robert L. Rome, Ann Arbor, 1 pair fat oxen, 7 years old, 1st premium, Transactions and $10 00

No. 37. Silas Sly, Plymouth, 1 fat steer 3 years old, 1st prem., 5 00

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CLASS XI.—FAT CATTLE, FED ON HAY AND GRASS ALONE AFTER ONE YEAR OLD.

Mo. 98. Thomas Hall, Greenfield, 1 pair fat steers, 5 years old, 2d premium, ... $8 00

No. 266. Silas Sly, Plymouth, 1 fat cow, 7 years old, 1st premium, ... 5 00

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CLASS XII.—MILCH COWS.

No. 131. Gideon Stoddard, Litchfield, native cow, 3d premim, $7 00

No milch cows offered, worthy of 1st or 2d premium.

LELAND GREEN,
Chairman.

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CLASS XII.—FOREIGN CATTLE.

The committee on foreign cattle beg leave to report, that they have carefully examined the animals in this class, and find eighty-seven head

entered for competition; the greater part of which are owned in this State, and entered to compete with foreign cattle for the premiums in this class.

We have awarded the premiums as follows:

No. 164. C. Fuller & Co., Plymouth, short horn bull 5 years old, Diploma and $10 00

No. 134. J. Starkweather, Ypsilanti, short horn bull, 2 years old, Diploma and 7 00

No. 34. Silas Sly, Plymouth, short horn bull calf, 4 months old, 5 00

No. 101. Crippen & Freeman, Coldwater, short-horn cow, 8 years old, Diploma and 10 00

No. 110. Asa Williams, Lima, short-horn heifer 2 years old, Diploma and 7 00

No. 33. Silas Sly, Plymouth, short-horn heifer 1 year old, Diploma and 5 00

No. 36, Silas Sly, Plymouth, short-horn heifer calf 6 months old, ... 5 00

No Devon cattle owned out of the State were offered, consequently no premiums can be awarded.

There were some very fine Devons owned in the State, entered to compete in this class, among which was a Devon bull, No. 247, owned by O. E. Eldred, of Napoleon, Jackson county, which we think is a very superior animal, and deserving of special notice.

There were entered 25 head of short horn cattle by Gilbert Mathews, of Avon, Livingston Co., N. Y., some of these cattle were excellent specimens of short horns, and some of them showed high marks of breeding.

One cow, No. 1., five years old, deserves special notice, and we recommend a discretionary premium.

A fine lot of short horn cows were exhibited by Silas Camp, of Henrietta, Jackson county, all worthy of special notice.

The Committee regret that there are no more premiums offered in this class, as we find many animals worthy, yet but one premium is offered in each division. We found it difficult in many cases to decide on the merits of animals in the different divisions, but if the premium list had been extended, as in the other classes of cattle, we would have

felt we were doing better justice to competitors, and it would have been more gratifying to ourselves.

GEORGE P. BENNETT,
J. S. TIBBITTS,
G. BUEL,
Committee.

HORSES.

CLASS XIV.—HORSES FOR ALL WORK.

No. 50. Smith & Crippen, Coldwater, stallion 5 years old, 1st premium, Silver Medal and $15 00
No. 155. A. L. Hays, Marshall, stallion 6 years old, 2d prem., 10 00
No. 130. Edm'd Bennett, Nankin, stallion 3 years old, 1st premium, Butter Knife and 10 00
No. 81. Chas. A. Jeffries, Dexter, stallion 3 years old, 2d prem., 10 00
No. 122. Abram Fisher, Redford, stallion 3 years old, 3d prem. 8 00
No. 182. P. C. Lown, Constantine, stallion 2 years old, 1st., premium, ... 10 00
No. 173. Hiram Miller, Rawsonville, stallion 2 years old, 2d premium, ... 8 00
No. 141. W. White, Birmingham, stallion 1 year old, 1st prem., 8 00
No. 158. J. S. Tibbitts, Plymouth, stallion 1 year old, 2d prem., 6 00
No. 103. David G. Brown, Nankin, stallion colt 4 months old, 1st premium, ... 5 00
No. 91. F. W. Backus, Detroit, stallion colt 3 months old, 2d premium, ... 4 00
No. 192. E. M. Crippen, Coldwater, mare 8 years old with foal at foot, 1st premium, Silver Medal and 12 00
No. 120. Abram Fisher, Redford, mare 5 years old with foal at foot, 2d premium, ... 12 00
No. 225. Ephraim Perkins, Birmingham, mare 12 years old, with foal at foot, 3d premium, ... 10 00
No. 140. Conrad Walter, Rochester, stallion 8 years old, 3d premium, ... 8 00
No. 203. W. Burt, Mt. Vernon, mare 3 years old, 1st prem., 10 00

No. 207. Gideon Bolio, Detroit, mare 3 years old, 2d premium, $8 00
No. 19. Geo. Teagan, Redford, mare 2 years old, 1st premium, 8 00
No. 203½. Wm. Burt, Mt. Vernon, mare 2 years old, 2d prem., 6 00
No. 118. H. A. Snyder, Greenfield, mare colt 1 year old, 1st premium, 6 00
No. 109. Charles Field, Greenfield, mare colt 1 year old, 2d 5 00
No. 48. John McCrea, Coldwater, sucking colt, 1st premium, 5 00

All of which is respectfully submitted,

W. F. BECKWITH,
JOHN CAMPBELL,
JAS. D. FRANKLIN,
S. B. WATERFORD,
ALEX'R FOX,
P. COOK,

Committee.

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CLASS XV.—BLOOD HORSES.

The committee on blood horses beg leave to say, that the number of animals presented for our inspection was hardly so great as we had hoped to see, numbering in all but seventeen, including stallions, mares and colts; and to this number, we regret to say, that in consideration of the rules of the Society, and for want of satisfactory evidence as to the purity of the pedigree of some of the animals, we are enabled to make only the following awards:

No. 77. C. A. Jefferies, Dexter, stallion 17 years old, 1st premium, Silver Medal and $15 00
No. 96. W. H. Chapple, Detroit, stallion 5 years old, 2d premium, 12 00
No. 194. E. M. Crippen, Coldwater, stallion colt, 1 year old, 1st premium, 8 00
No. 193. E. M. Crippen, Coldwater, mare 2 years old, 1st premium, 8 00

With these awards the duties of the committee ceased.

No brood mares with colts at their side, whose blood being, in our opinion, pure and unadulterated, were presented for our consideration;

though several beautiful thorough-bred mares, with foal, and in high racing condition, were entered in this class, with the most sanguine and reasonable expectation on the part of their owners, that they would not "go without their reward." And in justice to Mr. C. A. Jefferies, and the Messrs. Chapple, the owners of "Dora," "Madeleine," "Emily" and "Gertrude." We feel compelled to say that we regret exceedingly, that the rules of the Society would not permit us to make an award to either of the above mares; although their pedigrees, action, symetry and performances, gave the most unmistakable evidence of their being descendants in a direct line from the English thoroughbred horse.

S. P. BRADY,
E. S. MOORE,
C. A. GREEN,
DANIEL A. KELLY.
Committee.

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CLASS XVI.—DRAUGHT HORSES.

The Committee on draught horses would respectfully report the following awards:

No. 47. E. W. Rising, Richfield, stallion, 4 years old, 1st premium, Silver Medal and $10 00
No. 26. Smith Randall, Canton, stallion 4 years old, 2d prem., Transactions and 10 00
No. 84. Harmon A. Ray, Hindsburgh, Vt., stallion 12 years old, 3d premium, Text Book of Agriculture and 8 00
No. 227. A. J. Porter, Hadley, stallion 3 years old, 1 prem., 10 00
No. 186. D. C. Blair, Tipton, stallion 2 years old, 1st premium, 8 00
No. 150. James Davidson, Hamtramck, stallion 1 year old, 1st premium, ... 7 00
No. 67. J. Simmons, Farmington, stallion colt, 1st premium, .. 5 00
No. 187. J. W. Dickinson, Hillsdale, stallion colt, 2d premium, 4 00
No. 191. E. M. Crippen, Coldwater, brood mare 4 years old, 1st premium, Silver Medal and 8 00
No. 117. H. A. Snyder, Greenfield, brood mare 4 years old, 2d premium, Transactions and 8 00

No. 66. J. Simmons, Farmington, brood mare 4 years old, 3d premium, Modern Horse Doctor and $6 00
No. 118. H. A. Snyder, Greenfield, mare 1 year old, 1 prem., 6 00
No. 82. Walter Henderson, Greenfield, mare colt, 1st premium, 5 00

S. G. PATTISON,
C. G. GEORGE,
W. H. HUMPHREY,
W. A. HOAG,
DAVID BROWN,
Committee.

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CLASS XVII.—MATCHED AND SINGLE HORSES.

The committee on matched and single horses, report that the entries in this class were unusually large, being 228 in all, consequently they have not been able to examine them with that particular care that was desirable; they have however, been sufficiently so to satisfy themselves of the correctness of their report.

Matched Carriage Horses.

In this division the committee find more difficulty than in any other there being a large number on exhibition, of first class horses, and many others deserving of favorable notice. We report the following awards:

No. 108. Wm. M. Humphrey, Saline, 1 pair horses, 5 years old, 1st premium, Silver Medal and $15 00
No. 195. Eber Adams, Adrian, 1 pair horses, 5 years old, 2d premium, Butter Knife and 10 00
No. 222. J. W. Tillman, Detroit, 1 pair horses 6 years old, 3d premium, Transactions and 10 00
No. 124. Henry Randolph, Adrian, 1 pair horses 7 years old, 4th premium, ... 8 00
No. 87. L. F. Patrick, Adrian, 1 pair horses 3 years old, 1st premium, ... 10 00
No. 174. H. V. D. Bogert, Novi, 1 pair horses 3 years old, 2d premium, ... 8 00
No. 153. Abraham Lapham, Farmington, 1 pair horses 3 years old, 3d premium, ... 6 00

No. 119. Samuel Blanchard, Farmington, 1 pair horses 3 years old, 4th premium, ... $5 00

Single Horses.

No. 147. L. F. Macquivey, Detroit, 1 single horse 8 years old, 1st premium, Silver Medal and 5 00

No. 49. F. V. Smith, Coldwater, 1 single horse 5 years old, 2d premium, Diseases of Animals and 5 00

No. 21. H. W. Lord, Pontiac, 1 single horse 6 years old, 3d premium, ... 5 00

No. 14. James Dubois, Hamtramck, 1 single horse, 4th premium, ... 3 00

No. 134. John R. Martin, Troy, 1 single horse 3 years old 1st premium, ... 5 00

No. 35. D. M. Uhl, Ypsilanti, 1 single horse 3 years old, 2d premium, ... 4 00

No. 37. D. M. Uhl, Ypsilanti, 1 single horse 3 years old, 3d premium, ... 3 00

No. 38. D. M. Uhl, Ypsilanti, 1 single horse 2 years old, 1st premium, ... 4 00

No. 36. D. M. Uhl, Ypsilanti, 1 single horse 2 years old, 2d premium, ... 3 00

No. 56. C. Williams, Webster, 1 single horse 2 years old, 3d premium, ... 2 00

Matched Farm Horses.

No. 131. Wm. Davis, Troy, 1 pair horses 6 years old, 1st premium, Silver Medal and $15 00

No. 88. A. E. Pardee, Plymouth, 1 pair horses 4 years old, 2d premium, Text Book of Agriculture and 10 00

No. 74. John Starkweather, Ypsilanti, 1 pair horses 5 years old, 3d premium, Transactions and 5 00

No. 133. Calvin A. Green, Troy, 1 pair horses 3 years old, 1st premium, ... 10 00

CLASS XVIII.—JACKS AND MULES—none exhibited.

CHAS. T. GORHAM,
HORACE WELCH,
F. W. BACKUS,
C. A. GREEN,
Committee.

CLASS XIX.—FOREIGN HORSES.

The Committee on foreign horses beg leave to report that for want of time they are not enabled to give a minute description of the animals entered as foreign, or of the domestic entered to compete with foreign. With regard to two of the foreign horses entered as horses for all work, the Committee feel bound to say, that in giving their award to the horse called Victor, No. 29, they have felt that want of size was the only objection to horse No. 44, called General Gifford, but were he of the size required for "all work," he would be much the most perfect horse exhibited in his class.

Quite a number of horses were exhibited, all possessing many valuable qualifications, and did time permit, a more extended notice would be given of them.

It is perhaps sufficient to say that many of the domestic horses, entered to compete with foreign horses were so superior in most qualifications requisite for a perfect horse, that the Committee have felt at a great loss to decide upon their merits.

It is a gratifying fact to all interested in improving our stock of horses, that so many specimens of our own raising have been exhibited to compete with foreign stock, and the Committee would recommend a discretionary premium of ten dollars and a Diploma to the black horse called Badger, No. 155, five years old, not presented for competition, as his owner is a member of the examining Committee and felt a delicacy in offering him for a premium.

No. 29. Henry Stonehouse, Bayfield, C. W., stallion for all work, 5 years old, Diploma and $10 00

No. 25. R. W. Baird, Detroit, stallion, blood, 8 years old, Diploma and 10 00

No. 135. J. Goodsell, Greenfield, stallion, draught, 8 years old, Diploma and 10 00

No. 49. F. V. Smith, Coldwater, mare for all work 5 years old, 10 00

THOS. G. COLE,
CHAS. DICKEY,
H. HURD,
WM. JOHNSON.

Committee.

DIVISION B.—SHEEP.

CLASS I.—SPANISH MERINO.

The Committee on Spanish merino sheep report that they have examined the different pens of sheep, of this class on exhibition, and find many excellent specimens, and have awarded the following premiums:

No. 52. G. W. Gale, Ypsilanti, buck 3 years old, 1st premium, Silver Medal and $6 00

No. 208. Ira H. Butterfield, Utica, buck 3 years old, 2 premium, ... 6 00

No. 38. B. Peckham, Parma, buck 3 years old, 3d premium, .. 4 00

No. 73. J. W. Dickinson, Hillsdale, buck 2 years old, 1st premium, Silver Medal and 6 00

No. 72. J. W. Dickinson, Hillsdale, buck 2 years old, 2d premium, ... 6 00

No. 53. G. W. Gale, Ypsilanti, buck 2 years old, 3d prem., .. 4 00

No. 54. " " " 1 year old, 1st premium, 6 00

No. 31. J. H. Benton, Clinton, " " 2d " 5 00

No. 41, B. Peckham, Parma, " " 3d " 4 00

No. 39. " " 5 buck lambs, 1st premium, ... 6 00

No. 35. " " " 2d " 5 00

No. 36. " " 5 ewes, 3 to five years old, 1st premium, Silver Medal and 6 00

No. 55. G. W. Gale, Ypsilanti, 5 ewes, 3 years old, 2d premium, ... 6 00

No. 74. J. W. Dickinson, Hillsdale, 5 ewes, 3 years old, 3d 3d premium, ... 4 00

No. 48. B. Peckham, Parma, 5 ewes 2 years old, 1st premium, Silver Medal and 6 00

No. 56. G. W. Gale, Ypsilanti, 5 ewes 2 years old, 2d premium, ... 5 00

No. 214. Ira H. Butterfield, Utica, 5 ewes 2 years old, 3d premium, ... 4 00

No. 37. B. Peckham, Parma, 5 ewes 1 year old, 1st premium, 6 00

No. 49. " " " 2d " 5 00

No. 45. " " lambs, 1st premium, ... 6 00

None others worthy.

WILLIAM CONGDEN,

Chairman.

CLASS II.—FRENCH MERINO.

The Committee on French merino sheep would respectfully report the following awards:

No. 57. G. W. Gale, Ypsilanti, buck, 2 years old, 1st premium, Silver Medal and $6 00
No. 98. Wm. Congdon, Plymouth, buck, 2 years old, 2d prem., 6 00
No. 29. J. H. Benton, Clinton, buck, 1 year old, 1st premium, 6 00
No. 100. Wm. Congdon, Plymouth, buck, 1 year old, 2d prem., 5 00
No. 58. G. W. Gale, Ypsilanti, buck, 1 year old, 3d premium, 4 00
No. 28. J. H. Benton, Clinton, 5 buck lambs, 1st premium, .. 6 00
No. 59. G. W. Gale, Ypsilanti, 5 ewes, 3 years old, 1st prem., Silver Medal and 6 00
No. 26. J. H. Benton, Clinton, 5 ewes, 3 years old, 2d prem., 6 00
No. 27. J. H. Benton, Clinton, 5 ewe lambs, 1st premium, ... 6 00

DAN'L KIMBALL,
Chairman.

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CLASS III.—SAXON AND SILICIAN.

The Committee on Saxon and Silician sheep report as follows:

No. 126. J. P. Gillett, Manchester, 1 Silician buck 3 years old, 1st premium, Silver Medal and $6 00
No. 96. C. A. Jefferies, Dexter, 1 Silician buck 2 years old, 1st premium, Silver Medal and 6 00
No. 127. J. P. Gillet, Manchester, Saxony buck 2 years old, 2d premium, ... 6 00
No. 128. J. P. Gillet, Manchester, Saxon buck, 2 years old, 1st premium, ... 6 00
No. 129. J. P. Gillet, Manchester, 5 Saxony buck lambs, 1st premium, ... 6 00
No. 131. J. P. Gillet, Manchester, 5 Saxony ewes, 3 years old, 1st premium, Silver Medal and 6 00
No. 132. J. P. Gillet, Manchester, 5 Saxony ewe, 2 years old, 1st premium, ... 6 00
No. 133. J. P. Gillet, Manchester, 5 Saxony ewes, 1 year old, 1st premium, ... 6 00

No. 133. J. P. Gillet, Manchester, 5 Saxony ewe lambs, 1st premium, ... $6 00

No. 130. J. P. Gillet, Manchester, 5 Saxon and Silician ewes 3 years old, 1st premium, Silver Medal and 6 00

HIRAM SMITH,
Chairman.

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CLASS IV.—CROSS OF FULL BLOOD.

The Committee on sheep, cross of full blood report the following awards:

No. 31. J. H. Benton, Clinton, buck 4 years old, 1st premium, Silver Medal and $6 00

No. 60. Geo. W. Gale, Ypsilanti, buck 3 years old, 2d prem., 6 00

No. 60. " " " 3 " 3d " 4 00

No. 61. " " " 2 " 1st " Silver Medal and 6 00

No. 61. Geo. W. Gale, Ypsilanti, buck 2 years old, 2d prem., 6 00

No. 61. " " " 2 " 3d " 4 00

No. 216. Ira H. Butterfield, Utica, buck 1 year old, 1st prem., 6 00

No. 215. " " " 1 " 2d " 5 00

No. 217. " " " 1 " 3d " 4 00

No. 218. " " 5 buck lambs, 1st " 6 00

No. 63. Geo. W. Gale, Ypsilanti, 5 ewes 3 years old, 1st prem., Silver Medal and 6 00

No. 220. Ira H. Butterfield, Utica, 5 ewes 2 years old, 1st prem., 6 00

No. 221. " " " 2 " 2d " 5 00

No. 62. G. W. Gale, Ypsilanti, " 2 " 3d " 4 00

No. 222. Ira H. Butterfield, Utica, " 1 " 1st " 6 00

No. 65. G. W. Gale, Ypsilanti, " 1 " 2d " 5 00

No. 223. Ira H. Butterfield, Utica, " 1 " 3d " 4 00

No. 219. " " 5 ewe lambs, 1st premium, 6 00

G. H. SHERMAN,
THOS. B. GOODSPEED,
WM. TAFT,
JOHN D. OLCOTT,
Committee.

CLASS V.—GRADE SHEEP.

The committee on grade sheep would respectfully make the following report:

No. 153. C. A. Green, Troy, buck 3 years old, 1st premium, $5 00
No. 92. C. B. Seymour, Scio, buck 2 years old, 2d " 4 00
No. 152. C. A. Green, Troy, buck 1 year old, 1st " 5 00
No. 143. O. W. & G. P. Bennet, Jackson, buck 1 year old, 2d premium, 4 00
No. 93. C. B. Seymour, Scio, buck 1 year old, 3d premium, 3 00
No. 158. Clarissa Otis, Greenfield, 5 buck lambs, 1st premium, 5 00
No. 111. J. Tireman, Detroit, 5 ewes 2 years old, 2d " 4 00
No. 76. J. W. Dickinson, Hillsdale, 5 ewes 3 years old, 3d premium, 3 00
No. 156. Clarissa Otis, Greenfield, 5 ewe lambs, 1st premium, 5 00
No. 157. " " " 2d " 4 00
No. 146. O. W. & G. P. Bennett, Jackson, 5 ewe lambs, 3d premium, 3 00
No. 145. O. W. & G. P. Bennet, 5 ewes 1 year old, 1st premium, 5 00
No. 112. J. Tireman, Detroit, 5 ewes 1 year old, 3d premium, 3 00

J. B. CRIPPEN,
C. A. JEFFERIES,
BURKE SPENCER.
Committee.

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CLASS VI.—LONG WOOLED SHEEP.

The Committee having examined the long wooled sheep on exhibition beg leave to report the following awards:

No. 122. T. Edwards, Ann Arbor, buck 3 years old, 1st prem., $5 00
No. 141. O. W. & G. P. Bennett, Jackson, buck 2 years old, 2d premium, 4 00
No. 71. J. W. Dickinson, Hillsdale, buck 2 years old, 3d prem., 3 00
No. 123. T. Edwards, Ann Arbor, buck 1 year old, 1st premium, 5 00
No. 142. O. W. & G. P. Bennett, Jackson, buck 1 year old, 2d premium, 3 00

No. 113. J. Tireman, Detroit, 5 buck lambs, 3d premium, ... $3 00
No. 69. J. W. Dickinson, Hillsdale, 5 ewes 3 years old, 1st premium, ... 5 00
No. 144. O. W. & G. P. Bennett, Jackson, 5 ewes 2 years old, 2d premium, ... 4 00
No. 68. J. W. Dickinson, Hillsdale, 5 ewes 3 years old, 3d prem., 3 00
No. 124. T. Edwards, Ann Arbor, 5 ewe lambs, 1st premium, 5 00
No. 70. J. W. Dickinson, Hillsdale, 5 ewe lambs, 2d premium, 4 00
No. 114. J. Tireman, Detroit, 5 ewe lambs, 3d premium, ... 3 00
No. 196. Fred. Forsyth, 1 shepherd's slut with 4 pups. Discretionary Premium.

TITUS DORT,
Chairman.

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CLASS VII.—MIDDLE WOOLED SHEEP.

No. 105. W. H. Lester, Utica, buck 3 years old, 1st premium, $5 00
No. 106. " " " 3 " 2d " 4 00
No. 21. Wm. Maiden, Plank Road, buck 1 year old, 1st prem., 5 00
No. 107. W. H. Lester, Utica, 5 buck lambs, 2d premium, ... 4 00
No. 103. W. H. Lester, Utica, 5 ewes 3 years old, 1st prem., 5 00
No. 110. J. Tireman, Detroit, 5 ewes 2 " 2d " 4 00
No. 104. W. H. Lester, Utica, 5 ewe lambs, 2d " 4 00

C. B. SEYMOUR,
Chairman.

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CLASS VIII.—FAT SHEEP.

None of this class on exhibition.

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CLASS IX.—FOREIGN SHEEP.

The committee on foreign sheep find a very superior quality of thorough-bred sheep on exhibition, which the limited premiums compel them to pass; yet as to quality, the sheep show perfect breeding and pure blood. We report the following awards:

No. 262. Hall & White, Gaines, N. Y., French buck 4 years old, $5 00
No. 9. John Johnson, Williston, Vt., French buck 3 years old, 5 00
No. 14. A. L. Bingham, Cornwall, Vt., " 1 year old, 5 00
No. 244. Hall & White, Gaines, N. Y. buck, cross of French and Spanish, 2 years old, 5 00
No. 15. A. L. Bingham, Cornwall, Vt., 5 French ewes, 3 years old, 5 00
No. 3. Daniel Kimball, Rutland, Vt., 5 French ewes, 2 years, old, 5 00
No. 4. Daniel Kimball, Rutland, Vt., 5 French ewes, 1 year old, 5 00
No. 245. Hall & White, Gaines, N. Y., 1 French buck lamb, 5 00
No. 96. C. A. Jefferies, Dexter, Mich., Silecian buck 2 years old, 5 00
No. 11. John Johnson, Williston, Vt., 5 ewes, cross of French and Spanish, 2 years old, 5 00
No. 7. D. Kimball, Rutland, Vt., Spanish merino buck, 1 year old, 5 00
No. 212. Ira H. Butterfield, Utica, Mich., 5 Spanish ewes, 3 years old, 5 00
No. 213. Ira H. Butterfield, Utica, Mich., 5 Spanish ewes, 2 years old, 5 00
No. 200. Parker Haner, Wilson, N. Y., 1 long wooled buck, 4 years old, 5 00
No. 155. Thomas Salmonia, Amherstburg, C. W., 9 long wooled ewes, 2 years old, 5 00

RANSOM GARDNER,
A. P. COOK.
Committee.

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CLASS X.—SWINE.

No. 188. J. S. Tibbits, Plymouth, Essex boar 18 months old, 1st premium, Youatt on the Hog and $5 00
No. 117. H. A. Snyder, Greenfield, Suffolk boar, 18 months old, 1st premium, Field Book of Manures and 5 00

No. 195. J. S. Tibbits, Plymouth, Suffolk boar 18 months old, 2d premium, ... $3 00

No. 149. C. A. Green, Troy, Suffolk boar 6 months old, 2d premium, ... 3 00

No. 94. Wm. Moore, Detroit, Suffolk sow 10 months old, 1st premium, Agricultural Text Book and 5 00

No. 95. Wm. Moore, Detroit, lot Suffolk pigs 4 months old, .. 5 00

No. 189. J. S. Tibbits, Plymouth, lot Essex pigs 5½ months old, ... 5 00

No. 230. Peter Dearin, Parma, Leicester sow, Blake's Farmer at Home and 5 00

No. 231. Peter Dearin, Parma, lot Suffolk pigs, ... 5 00

No. 19. Thos. Smith, Detroit, grade sow, 1st premium, Field Book of Manures and 5 00

No. 134. Mark Flannagan, Detroit, grade sow, 2d premium, 3 00

No. 150. C. A. Green, Troy, Suffolk sow 6 months old, ... 3 00

No. 193. J. S. Tibbitts, Plymouth, lot grade pigs 5 months old, Diseases of Domestic Animals and 3 00

No. 159. Clarissa Otis, Greenfield, fat hog 1 year and 7 months old, ... 5 00

No. 234. A. C. Harris, Toledo, 8 Suffolk pigs, 6 weeks old, Diploma.

P. DIXON,
WM. MOORE,
ALANSON PEARSALL.
Committee.

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CLASS XI.—POULTRY.

The committee on poultry report the following awards:

No. 175. E. H. Cressy, Troy, 1 coop Surry Dorkings, ... $4 00

No. 81. Crippen & Freeman, Coldwater, coop red Cochins, 1st premium, ... 4 00

No. 204. H. Walker, Detroit, coop black Cochins, 2d prem., .. 2 00

No. 172. E. H. Cressy, Troy, coop white Shanghais, 1st premium, ... 4 00

No. 89. Crippen & Freeman, Coldwater, coop Dominicos, 2d premium, ... $2 00

No. 77. Crippen & Freeman, Coldwater, coop light Brahmas, 1st premium, ... 4 00

No. 168. E. H. Cressy, Troy, coop light Brahmas, 2d premium, ... 2 00

No. 184. E. H. Cressy, Troy, coop seabright Bantams, 1st premium, ... 4 00

No. 87. Crippen & Freeman, Coldwater, coop seabright Bantams, 2d premium, ... 2 00

No. 182. E. H. Cressy, Troy, coop white Bantams, 1st premium, ... 2 00

No. 139. A. & W. Buhl, Detroit, coop white Shanghais, 2d premium, ... 1 00

No. 78. Crippen & Freeman, Coldwater, coop mottled, cross, 1st premium, ... 4 00

No. 77. Crippen & Freeman, Coldwater, coop light Brahmas, best variety, ... 4 00

No. 187. E. H. Cressy, Troy, coop light Brahmas, 2d best variety, ... 4 00

No. 185. E. H. Cressy, Troy, largest and best collection of poultry, 1st premium, ... 5 00

No. 116. Crippen & Freeman, Coldwater, largest and best collection of poultry, 2d premium, ... 3 00

No. 118. Samuel Wayne, Dearborn, black turkeys, ... 3 00

No. 239. T. R. Rowen, Detroit, 1 coop black ducks, ... 50

No. 240. S. N. Webster, Detroit, 1 coop Muscovy ducks, ... 50

No. 147. M. Fisher, Grosse Point, coop grey geese, ... 3 00

No. 120. Francis Leslie, Dearborn, coop Guinea fowls, ... 3 00

No. 173. E. H. Cressy, Troy, coop black Spanish fowls, ... 1 00

No. 175. " " cross of Game and Bantam, ... 1 00

Crippen & Freeman, Coldwater, the greatest weight and number of eggs from one hen, ... 5 00

E. M. PILCHER,
Chairman.

DIVISION C.—FARM IMPLEMENTS.

CLASS I.—FARM IMPLEMENTS.

No. 170. Davis, Austin & Co., Jackson, farm wagon, 1st prem., Diploma and 8 00
No. 171. Davis, Austin & Co., Jackson, farm wagon, 2d prem., 6 00
No. 37. John Collins, Detroit, Buffalo wagon, 1st premium, .. 3 00
No. 38. " " " 2d " 2 00
No. 19. F. F. Parker, " harrow, ... 3 00
No. 61. D. O. & W. S. Penfield, Detroit, Peckham's cultivator, revolving teeth, ... 3 00
No. 225. Arms & Robinson, Kalamazoo, wheel cultivator, ... 3 00
No. 55. D. O. & W. S. Penfield, Detroit, Kiech & Stillwell's fan mill and separator, ... 4 00
No. 22. F. F. Parker, Detroit, cornstalk cutter, ... 3 00
No. 23. " " straw cutter, ... 3 00
No. 172. C. H. Bennett, Plymouth, portable cider mill, ... 4 00

JAMES MONROE,
IRA H. BUTTERFIELD,
OLIN HAMPTON,
JOHN SPRAGUE,
Committee.

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CLASS II.—FARM IMPLEMENTS.

No. 88. D. O. & W. S. Penfield, Detroit, 6 patent, solid dung forks, ... $2 00
No. 68. D. O. & W. S. Penfield, Detroit, 2 Morgan's cradles and scythes, ... 2 00
No. 63. D. O. & W. S. Penfield, Detroit, 6 thermometer churns, 1st premium, ... 2 00
No. 18. John H. Hinson, Detroit, 1 atmospheric churn, 2d premium, ... 2 00
No. 153. R. J. Tuttle, Clinton, 1 rotary churn, discretionary.
No. 56. D. O. & W. S. Penfield, Detroit, self-acting cheese press, 2 00
No. 139. " " 6 milk pans, ... 2 00
No. 64. " " 3 sizes sausage stuffers, discretionary.

No. 70. D. O. & W. S. Penfield, Detroit, 6 turned axe helves, discretionary.

No. 71. D. O. & W. S. Penfield, Detroit, 12 nonpareil apple parers, discretionary.

No. 72. D. O. & W. S. Penfield, Detroit, 12 wooden apple parers, discretionary.

No. 65. D. O. & W. S. Penfield, Detroit, 6 sizes sausage stuffers, discretionary.

N. VAN BRUNT,
W. BROWN,
JOSEPH ARNOLD,
Committee.

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CLASS III.—FARM IMPLEMENTS.

No. 41. D. O. & W. S. Penfield, Detroit, Emery's two horse power, Diploma and $5 00

No. 178. F. F. Parker, Detroit, horsepower, ... 5 00

No. 206. Willard Fisher, Brockport, N. Y., Ketchum's mowing machine, Diploma and 10 00

No. 24. F. F. Parker, Detroit, mowing machine, ... 5 00

No. 205. Willard Fisher, Brockport, N. Y., Seymour & Morgan's grain reaper, Diploma and 10 00

No. 167. J. S. Wright, Chicago, Ill., Atkin's automaton raker, Discretionary.

No. 42. D. O. & W. S. Penfield, Detroit, Emery's thresher and separator, Diploma and 10 00

No. 107, D. O. & W. S. Penfield, Detroit, Emery's seed drill, horse and hand, ... 5 00

No. 168. C. B. Seymour, Scio, grain drill, ... 5 00

No. 169. " " broad-cast sowing machine, Diploma and 2 00

No, 3. H. W. Hubbard, Ansonia, Conn., broad-cast sowing machine, Discretionary.

No. 34. T. A. Flowers, Pontiac, wheat cultivator, spring steel teeth, Diploma and 10 00

No. 160. G. F. Lockner, Adrian, L. Morris' improved grain drill, Diploma and $5 00

No. 217. James Andrews, Pontiac, corn planter, Woodward's improved, Diploma and 5 00

No. 43. D. O. & W. S. Penfield, Detroit, Emery's circular saw-mill, Diploma and 5 00

No. 27. F. F. Parker, Detroit, corn-sheller, Diploma and 2 00

No. 17. L. A. Pelton, Chicago, Ill., corn-sheller, horse power, Diploma and 2 00

No. 28. F. F. Parker, Detroit, vegetable cutter, Diploma.

No. 14. Cowing & Co., Seneca Falls, N. Y. specimen copper tubing, with couplings, ... 2 00

No. 49. D. O. & W. S. Penfield, Detroit, Emery's patent cider mill, Diploma and 2 00

No. 8. Cowing & Co., Seneca Falls, N. Y., collection of pumps and windmill, Diploma and 2 00

No. 15. Cowing & Co. Seneca Falls, N. Y., discharge pipe, Diploma and 5 00

No. 33. Andrew Race, Scipio, N. Y., Winegar's automaton gate opener and closer, Diploma and 2 00

No. 66. D. O. & W. S. Penfield, Detroit, 3 water rams, ... 1 00

No. 80. " " 1 road scraper, ... 1 00

No. 95. " " Peckham's agricultural furnace, ... 1 00

No. 99. D. O. & W. S. Penfield, Detroit, 1 iron pig-trough, ... 1 00

No. 97. " " 1 corn and cob mill, Felton's, Diploma and 5 00

No. 155. Scott & Hedges, Cincinnati, Ohio, corn and cob mill, "Little Giant," Diploma and 5 00

No. 161. H. B. Lund, Sandusky, Ohio, farm and park gate, Discretionary.

No. 180. A. & J. V. Harmon, Northville, Mich., drain tile machine, Diploma and 3 00

No. 181. A. & J. V. Harmon, Northville, Mich., sample of drain tile, Diploma and 3 00

No. 185. M. J. Cook, Detroit, portable conical grist mill, Diploma and 5 00

No. 176. A. B. Crawford, Piqua, Ohio, clover huller and separator, Diploma.

No. 187. R. N. Farely & Co., Jackson, Hyde's improved corn cultivator horse hoe, Diploma and $2 00

No. 208. M. H. Mansfield, Ashland, Ohio, clover huller and separator, Diploma and 5 00

No. 162. Charles McKinsie, Adrian, horse or hand power straw and stalk cutter, ... 2 00

No. 226. Wm. Weyburn, Detroit, 2 Thatcher's force pumps, Discretionary.

No. 227. E. Hudson, Pontiac, lifting pump, with Foley's patent fixtures, ... 2 00

Elliott & Herrington, Northfield, Curtis' plow jointer, improved, Diploma and 5 00

F. M. FOSTER,
E. ARNOLD,
Committee.

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CLASS IV.—FARM IMPLEMENTS—PLOWS.

No. 200. R. Sheilds, Florence, 1 light soil sod plow, Diploma and $5 00

No. 75. D. O. & W. S. Penfield, Detroit, 1 subsoil plow, Diploma and 5 00

No. 76. D. O. & W. S. Penfield, Detroit, 1 steel plow, Diploma and 5 00

No. 215. H. Wallace, Detroit, iron, double mould-board plow, Diploma and 5 00

Plowing with Horses.

No. 2. J. P. Mansfield, Detroit, plowing with horses, 1st premium, the Complete Farmer and Gardner and 10 00

No. 193. Titus Dort, Dearborn, plowing with horses, 2d premium, Practical Agriculture, and 8 00

Plowing with Oxen.

No. 207. W. N. Burnett, Big Beaver, plowing with oxen, 1st premium, Blake's Farmer at Home, and 10 00

No. 195. C. W. Green, Farmington, plowing with oxen, 2d premium, Text Book of Agriculture and..... $8 00

No. 190. C. A. Green, Troy, plowing with oxen, 3d premium, 6 00

Addison Green, Troy, boy under 18 years of age, 1st premium for plowing, Text Book of Agriculture and..... 5 00

S. M. BARTLETT,
Chairman of Committee.

DIVISION D.—BUTTER, CHEESE, SUGAR AND HONEY.

The undersigned begs to offer his report upon the merits of the various articles submitted to the inspection of your Committee, with the several premiums awarded, set opposite the numbers respectively entitled to the same.

The show of butter and cheese at the Fair of 1854 exceeded that of the present year, both in quantity and quality. This is perhaps owing to the inferior quality of the food necessary to produce these very desirable articles.

In awarding premiums on cheese, your Committee have confined themselves to specimens manufactured within this State, recommending foreign samples for discretionary premiums.

The specimens of sugar offered deserve the highest praise.

No. 39. James Smith, Detroit, tub of butter made in Sept., 1st premium, Silver Medal and..... $5 00

No. 19. Mrs. O. Hampton, Hickory Grove, 20 lbs. butter made in June, 1st premium, Silver Medal and..... 5 00

No. 21. Mrs. G. W. Collins, Farmington, 15 lbs. butter made in June, 2d premium, Transactions and..... 3 00

No. 40. James Smith, Detroit, 15 lbs. butter made in June, 3d premium,..... 2 00

No. 20. Mrs. O. Hampton, Hickory Grove, 18 lbs. fresh butter, 1st premium, Silver Medal and..... 3 00

No. 35. Mrs. Titus Dort, Dearborn, 15 lbs. fresh butter, 2d premium, Transactions and..... 3 00

No. 23. Mrs. G. W. Collins, Farmington, 15 lbs. fresh butter, 3d premium,..... 2 00

No. 25. Mrs. G. W. Collins, Farmington, 15 lbs. fresh butter, 4th premium, ... $1 00

No. 8. Luther Lapham, Farmington, 1 cheese over 1 year old, 1st premium, Silver Medal and 8 00

No. 30. J. H. Murray, Farmington, 1 old cheese, 2d premium, American Farm Book and 3 00

No. 33. J. S. Tibbits, Plymouth, 2 new cheeses, 1st premium, 5 00

No. 28. Norton Lapham, Livonia, 23 new cheeses, 2d prem., Saxton's Rural Hand Book.

No. 6. Luther Lapham, Farmington, 3 new cheeses, 3d prem., 2 00

No. 27. N. Lapham, Livonia, 1 sage cheese, 1st " 5 00

No. 4. Robt. R. Briggs, Romeo, 1 " " 2d " Saxton's Rural Hand Book.

No. 34. J. S. Tibbits, Plymouth, 2 sage cheeses, 3d premium, 3 00

No. 36. Orson Ingalls, Almont, 10 lbs. maple sugar, 1st prem., 5 00

No. 44. C. R. Gilbert, Corunna, 10 lbs. " 2d " 3 00

No. 22. Mrs. G. W. Collins, Farmington, 10 lbs. maple sugar, 3d premium, ... 3 00

No. 42. G. & R. McMillan, Detroit, 4 Hamburg cheeses, discretionary.

No. 45. Jacob Beller, Detroit, 3 cheeses, imitation of Swiss, discretionary.

No. 41. James Smith, Detroit, 2 crocks lard made last winter, discretionary.

No. 1. Benj. Lee, Detroit, 1 jar molasses candy, discretionary.

No. 2. J. H. Wineman " 1 case confectionary, "

No. 9. W. W. Rider, " 1 bride's cake, "

No. 10. " " 1 ornamental basket of confectionary, discretionary.

O. B. DIBBLE,
Chairman of Committee.

DIVISION E.—DOMESTIC MANUFACTURES.

CLASS I.—HOME MADE.

Your Committee in presenting their report would suggest the propriety of reducing the number and the amount of the premiums for

patch work quilts. It is thought that the time is unprofitably spent in making these articles, or that at least, in most cases it might be more usefully and profitably employed in knitting, making shirts and other articles of utility.

A lady recommends that premiums be offered for the neatest specimens of mending, and stocking darning; the suggestion is worthy of your consideration.

It is also thought that premiums should be offered on tufted mittens, and on woolen and worsted comforters.

Several specimens of crochet and knit spreads and counterpanes of beautiful workmanship were examined but the premium list did not embrace these articles; it is recommended that hereafter premiums be offered on them.

Specimens of woolen, yarn and cotton stockings were exhibited which were highly creditable to the manufacturer, but it is to be regretted that only a first premium could be awarded on each; it is advised that a second and third premium be offered hereafter.

No. 269. Mrs. J. Newton, Ypsilanti, 1 pair woolen blankets, 1st premium, ... $5 00

No. 72. L. Emery, Hillsdale, 1 pair woolen blankets, 2d prem., Transactions and 4 00

No. 171. Mrs. J. Arnold, Dexter, 1 pair woolen blankets, 3d premium, ... 2 00

No. 83. Miss Sarah L. Cleveland, Hillsdale, 1 piece flannel, 1st premium, ... 5 00

No. 179. Mrs. F. Gaines, Dearborn, 10 yards flannel, 2d prem., 4 00

No. 172. Mrs. J. Arnold, Dexter, 10 yards " 3d " 2 00

No. 173. " " 10 " woolen carpet, 1st premium, ... 5 00

No. 71. L. Emery, Hillsdale, 1 piece woolen carpet, 2d prem., 3 00

No. 70. " " 1 piece " " 3d " 2 00

No. 244. Mrs. E. H. Bristol, Troy, 12 yds rag carpet, 1st " 3 00

No. 27. P. Hendrick, Detroit, 1 piece " " 2d " 2 00

No. 120. E. W. Parsons, " 1 piece " " 3d "
Transactions.

No. 236. Mrs. S. Chilson, Livonia Centre, 4 pair knit woolen stockings, ... 3 00

No. 22. James Bayley, Big Beaver, 1 pair knit woolen stockings, Transactions and $2 00
No. 24. W. A. Denison, Troy, 1 pair knit woolen stockings, Transactions and 2 00
No. 25. W. A. Denison, Troy, 1 pair knit woolen stockings, 1 00
No. 159. Mrs. J. L. Stout, Troy, 1 pair woolen socks, ... 2 00
No. 60. Mrs. John Leonard, Pontiac, 1 pair woolen socks, ... 1 00
No. 254. Mrs. John Thomas, Oxford, 1 pair fringed mittens, .. 1 00
No. 176. Mrs. J. Arnold, Dexter, 1 woolen coverlet, 1st prem., 4 00
No. 144. Mrs. Sarah N. Walter, Rochester, 1 double woolen coverlet, 2d premium, Transactions and 2 00
No. 268. Mrs. J. Newton, Ypsilanti, woolen and cotton coverlet, 3d premium, ... 1 00
No. 78. Miss Sarah L. Cleveland, Hillsdale, 1 woolen shawl, 1st premium, ... 5 00
No. 79. Miss Sarah L. Cleveland, Hillsdale, 1 woolen shawl, 2d premium, Transactions and 3 00
No. 74. L. Emery, Hillsdale, 1 woolen shawl, 3d premium, ... 3 00
No. 20. Mrs. Abigail Brink, Nankin, 1 woolen shawl, 4th premium, ... 2 00
No. 90. Mrs. L. H. Hewett, Detroit, 1 cotton coverlet, 1st prem., 5 00
No. 279. Mrs. Laura Andrews, Washington, 1 white quilt, 2d premium, ... 4 00
No. 230. Mrs. J. J. Rinched, Detroit, 1 knit white quilt, ... 3 00
No. 35. Mrs. Louisa Stratton, Detroit, 1 knit white quilt, ... 2 00
No. 131. Mrs. Eliza Horan, 1 patch work quilt, 1st premium, 5 00
No. 147. Mrs. Margaret Lowes, Birmingham, 1 patch work quilt, 2d premium, ... 4 00
No. 154. Mrs. Martin Kimball, Birmingham, 1 patch work quilt, 3d premium, ... 3 00
No. 278. H. T. Stannard, Detroit, 1 patch work quilt, 4th premium, ... 2 00
No. 252. Mrs. C. Hadsell, Pontiac, 1 piece linen wove kersey cloth, ... 3 00
No. 85. Harvey Armstrong, Livonia, 3 pieces linen cloth, ... 5 00
No. 243. Mrs. Joseph Aspinwall, Detroit, 1 linen quilt, ... 3 00

No. 166. Miss Cynthia Ann Smith, Troy, 1 pair knit linen stockings, ... $2 00

No. 81. Miss Sarah L. Cleveland, Hillsdale, 1 pair knit cotton stockings, ... 1 00

No. 252. Mrs. J. Starkweather, Ypsilanti, 1 pair cotton shell work stockings, ... 2 00

No. 245. Miss C. McKim, Ypsilanti, 1 pr. knit cotton stockings, 2 00

JEREMIAH BROWN,
J. E. BEEBE,
Committee.

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CLASS II.—FACTORY MADE.

The Committee on domestic manufactures, class 2, factory made, report that with the exception of a very few, the articles presented to them to judge of were of foreign manufacture, most of which are of decided merit, and we take pleasure in recommending them to the favorable notice of the Executive Committee for discretionary premiums.

The articles numbered 270 to 275 inclusive were manufactured in this State and are worthy of great commendation and entitled to premiums, but we do not find appropriate premiums in the list, we therefore recommend that discretionary premiums be awarded to them.

Of the large class of foreign goods presented to our notice, the following appeared to us as possessing decided merit, viz: No. 67 and 211 medallion carpets; 68, 217 and 202 Mosaic rugs; 69, 196 and 212, velvet carpets; 220, velvet fire screen; seem all of one family of manufacture, and of almost equal merit; should we give any preference it would be to the first named of each article or number.

Nos. 270, 271, and 272. Waterfield & Atkin, Eagle Lake, lot of woolen undershirts, lot of woolen and cotton drawers, lot of lambs wool stockings, Diploma and $5 00

Nos. 273, and 274. Waterfield & Atkin, Eagle Lake, lot of silk mittens and gloves, lot of woolen caps, Diploma and .. 3 00

No. 275. Waterfield & Atkins, Eagle Lake, 1 pair silk wristlets, ... Diploma.

No. 36. Miss Louisa Stratton, Detroit, 1 satin scarf, ... 1 00

No. 164. John Nicol, St. Clair, 1 piece pilot cloth, Diploma and $3 00
No. 165. " " 1 piece cloth, 2 00
No. 67. Holmes & Co., Detroit, 1 medallion carpet, Diploma.
No. 68. " " 4 Mosaic rugs, Transactions and 2 00
No. 99. " " 2 English velvet tapestry carpets, Diploma.
Nos. 202, 205, 196. Beecher, Rice & Ketchum, Detroit, 2 Mosaic rugs, 2 pieces brocatel, 1 English velvet, Diploma.
Nos. 211, 212. Nall, Duncklee & Co., Detroit, 1 velvet me-medalion carpet, 1 piece velvet carpet, Transactions.
No. 216. Nall, Duncklee & Co., Detroit, 2 pieces oil cloth, 3 00
No. 217. " " 6 velvet rugs, 3 00
No. 219. " " 1 lambs wool rug, 1 00
No. 222. " " 2 cloth piano spreads, 1 00
No. 223. " " 3 pieces silk and wool damask, Diploma.

SILAS BEEBE,
MRS. JOHN SPRAGUE,
J. C. KNAPP,
Committee.

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CLASS III.—DOMESTIC MANUFACTURES.

The committee having examined the articles in class 3, Domestic Manufactures, beg leave to report that we have awarded premiums to such articles as in our judgment we deemed worthy, and as follows.

No. 162. Nichols & Lefavour, Detroit, 1 pair cowhide boots, 1st premium, $3 00
No. 162. Nichols & Lefavour, Detroit, 1 pair cowhide boots, 2d premium, 2 00
No. 114. Michæl Martz, Detroit, 1 pair calfskin sewed boots, 1st premium, 3 00
No. 108. P. Blake, Detroit, 1 pair calfskin sewed boots, 2d premium, 2 00
No. 109. P. Blake, Detroit, 1 pair calfskin sewed boots, 3d premium, Transactions.

No. 115. Michael Martz, Detroit, 1 pair patent leather gaiters, 1st premium, ... $2 00

No. 107. P. Blake, Detroit, 1 pair patent leather boots, ... Diploma.

No. 13. Croul Brothers, Detroit, 6 sides harness leather, 1st premium, ... 4 00

No. 11. Croul Brothers, Detroit, 6 sides upper leather, 1st premium, ... 4 00

No. 12. Croul Brothers, Detroit, 6 sides bridle leather, 1st premium, ... 4 00

No. 14. Croul Brothers, Detroit, 12 calfskins tanned in 24 days, 1st premium, ... 4 00

No. 152. Henderson & Satchel, Detroit, 1 overcoat, 1st premium, Diploma and 4 00

No. 40. J. Colby, Detroit, 1 overcoat, 2d premium, ... 3 00

No. 41. " " 1 dress coat, 1st premium, Diploma and 3 00

No. 86. S. Guiterman & Bro., Ann Arbor, 1 dress coat, 2d premium, Transactions and 2 00

No. 154. Hilbourn & Cleveland, Detroit, 1 pair black pants, 1st premium, Diploma and 2 00

No. 153. Henderson & Satchell, Detroit, pair black pants, 2d premium, ... Transactions.

No. 43. J. Colby, Detroit, 1 vest, 1st premium, Diploma and. 2 00

No. 145. Hilbourne & Cleveland, Detroit, 1 vest, 2d premium, Transactions.

No. 127. George Winter, Detroit, 1 fur hat, 1st premium, Diploma and 2 00

No. 128. George Winter, Detroit, 1 silk hat, 1st premium, Diploma and 2 00

No. 277. Robert L. Barrowman, Detroit, 1 silk hat, 2d premium, ... Transactions.

No. 145. Hilbourne & Cleveland, Detroit, 1 frock coat, superior manufacture.

No. 146. Nichols & Lefavour, Detroit, 1 case boots and shoes, Diploma.

HENRY P. BALDWIN,
JEROME CROUL,
G. H. PERRY,
Committee.

CLASS IV —DOMESTIC MANUFACTURES.

The committee on class 4, domestic manufactures, report the following awards:

No. 62. Charles Parsons, Pontiac, 1 light two horse carriage, 1st premium, Diploma and $10 00

No. 126. John Patton, Detroit, 1 light 1 and 2 horse carriage, 2d premium, Transactions and 8 00

No. 37. Alex. Chope & Co., Detroit, 1 Prince Albert Buggy, 1st premium, Diploma and 8 00

No. 122. John Patton, Detroit, 1 shifting top buggy, 2d premium, ... 5 00

No. 140. Henry Weber, Detroit, 6 parlor chairs, ... 5 00

No. 139. " " 1 rosewood marble top centre table, ... 2 00

No. 21. J. B. Bloomfield, Plymouth, horse shoes, Diploma and 2 00

No. 210. Wm. Ewers, Detroit 1 flour barrel, ... 1 00

No. 209. " " 1 pork barrel, ... 1 00

No. 103. S. S. Barrows, " 1 panel door, 1st premium, ... 2 00

No. 104. " " lot window sash, ... 2 00

No. 105. " " lot window blinds, ... 2 00

No. 2. Julius Melcher, Detroit, 1 book case, carving very superior, ... Diploma.

No. 5. S. W. Taylor, Detroit, 1 portable, galvanized iron oven, Diploma and Transactions.

No. 10. Mrs. F. Mern, Detroit, 1 child's carriage, ... Discretionary.

No. 26. Davis, Austin & Co., Jackson, 1 pleasure sleigh, ... Diploma.

No. 44. C. E. Wilder, Detroit, 1 case assorted tools and cutlery, Discretionary.

Nos. 63, 64, 65, 66. James Cunningham, Rochester, N. Y., 1 caleche, 1 barouche, 1 mock caleche, 1 French Phaeton, Diploma.

Nos. 100, 101. S. S. Barrows, Detroit, 1 house frontispiece, 1 mahogany front door, with carved mouldings and ornaments, ... Diploma.

No. 133. Henry Weber, Detroit, 1 rosewood sofa, ... 5 00

Nos. 135, 137. Henry Weber, Detroit, 1 ladies' sewing chair, 1 oak marble top sideboard, ... Diploma.

No. 141. Henry Weber, Detroit, 1 oak garden chair,...Discretionary
No. 143. " " 1 rosewood hat stand, "
No. 257. Dudley & Holmes, Detroit, 1 diamond cooking range and circulating copper boiler,.....Diploma.
No. 256. Dudley & Holmes, Detroit, 1 bathing apparatus, silver plated, hot and cold circulating shower and copper bathing tub, gilt marble wash stand and water closet,.....Diploma.
No. 259. Dudley & Holmes, Detroit, 1 Boynton's patent, hard and soft coal, hot air furnace,.....Diploma.
No. 261. Dudley & Holmes, Detroit, 1 Boston air tight, parlor wood stove,.....Diploma
No. 263. Dudley & Holmes, Detroit, 1 Queen of the West improved cooking stove,.....Diploma.
No. 266. Dudley & Holmes, Detroit, hard coal stove,.....Diploma.

F. E. ELDRED,
CHAS. PARSONS,
S. S. MERRILL,
HUGH BROWN,
L. H. JONES,

Committee.

DIVISION F.

CLASS I.—PAINTINGS, DRAWINGS, DAGUERREOTYPES AND MUSICAL INSTRUMENTS.

The Committee on this class, after giving the articles presented for their examination such imperfect attention as their limited time would permit, and much distrusting their taste and judgment to do justice to competitors in the Fine Arts, have awarded premiums and recomendations as follows:

No. 63. A. Bradish, Detroit, portrait, oil painting, 1st prem., Diploma and..... $5 00
No. 65. G. D. Sidway, Detroit, animal, oil painting, Diploma and..... 5 00
No. 112. G. Watson, Detroit, landscape, oil painting, 1st prem., Diploma and..... 5 00

No. 1. Chas. Schlickum, Detroit, landscape, oil painting,.....Diploma.
No. 94. Sutton & Bro., " photograph in oil, 1st prem., Diploma and..... $5 00
No. 68. George E. Hall, Detroit, photograph in oil, 2d prem., 3 00
No. 127. J. Schwinden, " photograph on paper, 3d premium,.....Discretionary.
No. 93. Sutton & Bro., Detroit, collection of daguerreotypes, 1st premium, Diploma and..... 5 00
No. 73. George E. Hall, Detroit, collection of daguerreotypes, 2d premium, Diploma and..... 3 00
No. 111. Henry Hague, Jackson, specimens of graining,..... 3 00
No. 154. ——— Stephens, Detroit, 18 specimens of painting, imitation of wood and marble, Diploma and..... 5 00
No. 99. Detroit Melodeon Co., Detroit, Melodeon, 1st premium, Diploma and..... 5 00

In addition to the foregoing, the committee noticed many excellent specimens of art for which premiums were not offered, and we call the attention of the Executive Committee to the following, as worthy of further consideration:

No. 92. Sutton & Co., Detroit, best collection of daguerreotypes, plain.
No. 70. George E. Hall, Detroit, 2d best " "
No. 69. " " 3 pastel portraits.
No. 95. Sutton & Bro., " daguerreotypes on glass.
No. 57. C. Aspinall, " velvet painting.
No. 5. M. E. Barrett, " specimens of penmanship.
No. 114. Mrs. H. Walker, " map of the two hemispheres, drawn with a steel pen.
No. 115. Mrs. H. Walker, Detroit, map of the British Isles.
No 116. " " 2 specimens of penmanship.
No. 143. Wm. Shulthies, " marble statue of Lamb.
No. 129. J. Schwinden, " 4 window shades.
No. 2. James Campbell, " collection of valentines.
No. 16. Cooper & Cooley, Cleveland, Ohio, specimens of penmanship.
No. 17. " " " pen drawing.
No. 25. G. D. Davis, " " mechanical drawing.
No. 26. G. D. Davis, " " mechanical drawing.

The committee also found exhibited several articles of great merit, but as they were not enumerated on the books of the Society, though well deserving premiums, we have omitted them in our report.

All of which is respectfully submitted.

CALEB F. DAVIS,
J. ATKINSON,
CHARLES F. STEIN,
E. G. MORTON.

Committee.

CLASS II.—NEEDLE, SHELL AND WAX WORK.

The Committee on needle, shell and wax work, beg leave to report, that they found on their list, many articles of superior merit, not named in the premium list, and that premiums were offered for some articles not exhibited. We therefore found it necessary to recommend many discretionary premiums and have done so with more freedom, as the list offered was not filled.

No. 28. Mrs. S. W. Taylor, Detroit, ornamental needle work, 1st premium, ... $3 00

No. 74. Miss L. Lord, Detroit, ornamental needle work, 2d premium, ... 2 00

No. 45. Miss M. F. Elliott, Detroit, ornamental needle work, 3d premium, ... 1 00

No. 49. Holmes & Co., Detroit, embroidered cloak, ... 1 00

No. 35. Miss Mary Jones, Tecumseh, embroidered vest, ... 1 00

No. 38. Miss S. S. Miller, Detroit, hexagon sofa pillow, ... 2 00

No. 18. H. Schoonaker, Detroit, fancy chair work, 1st premium, 3 00

No. 100. Mrs. J. A. Berry, Detroit, fancy chair work, 1st prem., 2 00

No. 122. Beecher, Rice & Ketchum, Detroit, worsted work, 1st premium, ... 3 00

No. 79. Mrs. W. R. King, Detroit, worsted work, 2d premium, 2 00

No. 77. " " " " 3d " 1 00

No. 137. Mrs. Sam'l Lathrop, Adrian, worked collar, 1st prem., 3 00

No. 82. Miss A. Mead, Mead's Mill, " " 2d " 2 00

No. 106. Mrs. J. Arnold, Dexter, " " 3d " 1 00

No. 97. Miss Fanny Griswold, Detroit, child's embroidered merino dress, ... $2 00

No. 52. Holmes & Co., Detroit, 8 head dresses, ... 1 00

No. 53. " " 6 dress bonnets, ... 1 00

No. 4. Wm. Phelps & Co., Detroit, 1 case sugar fruits and flowers, ... 1 00

No. 10. Miss Rademaker, Detroit, 1 case hair work, ... 1 00

No. 12. Miss Louisa Shaw, Detroit, 1 case hair work, ... 1 00

No. 24. Mrs. John McCurdy, Detroit, ornamental leather work, 1 00

No. 59. Wm. E. Peters, Detroit, sculptured monument and statute, ... 3 00

No. 60. Wm. E. Peters, Detroit, 1 pair birds, in marble, ... 1 00

No. 61. " " small monument, ... 2 00

No. 98. Miss Mary A. Howland, Ypsilanti, embroidered handkerchief, ... 1 00

No. 119. Beecher, Rice & Ketchum, Detroit, embroidered piano cover, ... 1 00

No. 125. Miss Kennedy, Detroit, embroidered tidies, ... 1 00

No. 139. Miss M. Aspinall, Detroit, crochet bed-spread, ... 1 00

No. 87. Miss Josephine Barley, Detroit, lot of artificial flowers, 2 00

No. 22. Mrs. J. McCurdy, " ornamental wax-work, 1st premium, ... 3 00

No. 3. Wm. Phelps & Bro., Detroit, ornamental wax-work, 2d premium, ... 2 00

No. 134. Mrs. R. Chope, Detroit, ornamental shell work, 1st premium, ... 3 00

No. 29. Miss L. Styles, Salem, vase of artificial flowers, ... 3 00

No. 21. James Kerr, Detroit, lot of sea shells, ... 1 00

No. 30. Miss Kate Woodbridge, Detroit, box of sea shells, ... 1 00

No. 142. Mrs. J. B. Bloss, " needleworked shawl, .. 1 00

No. 150. Miss Rose Beaubien " wax figure, ... 1 00

Mrs. C. Morass, " shell work, ... 1 00

M. SHOEMAKER,
MRS. W. W. MURPHY,
MRS. H. H. EMMONS.

Committee.

DIVISION G.—FRUITS, FLOWERS AND VEGETABLES.

CLASS I.—FLOWERS.

The committee appointed to examine and award premiums for the collection of flowers exhibited, report the following list of premiums awarded:

No. 28. John Ford, Detroit, best and greatest variety of cut flowers, (Profess.,) $3 00

No. 1. Wm. Balls, Detroit, 2d best and greatest variety of cut flowers, ... 2 00

No. 354. Mrs. Jerh. Brown, Battle Creek, best and greatest variety of cut flowers, (amateur,) 3 00

No. 292. Hiram Walker, Detroit, 2d best and greatest variety of cut flowers, (amateur,) 2 00

No. 196. Wm. Adair, Detroit, best and greatest variety of dahlias, 1st premium, ... 3 00

No. 19. John Ford, Detroit, 2d best and greatest variety of dahlias, 2d premium, ... 2 00

No. 197. Wm. Adair, Detroit, best 12 dissimilar blooms, 1st premium, ... 3 00

No. 2. Wm. Balls, Detroit, 2d best 12 dissimilar blooms, 2d premium, ... 2 00

No. 326. Mrs. J. Brown, Battle Creek, best single variety, 1st premium, ... 3 00

No. 21. John Ford, Detroit, 2d best single variety, 2d premium, ... 1 00

No. 201. Wm. Adair, Detroit, best and greatest variety of roses, 1st premium, ... 3 00

No. 238. Hubbard & Davis, Detroit, 2d best and greatest variety of roses, 2d premium, ... 2 00

No. 362. Wm. Adair, Detroit, best 12 dissimilar blooms, ... 2 00

No. 3. Wm. Balls, Detroit, best and greatest variety of phloxes, 3 00

No. 333. Mrs. J. Brown, Battle Creek, 2d best and greatest variety of phloxes, ... 2 00

No. 150. Thomas G. Angel, Detroit, best and greatest variety of verbenas, ... 3 00

No. 22. John Ford, Detroit, 2d best and greatest variety of verbenas, ... $2 00

No. 332. Mrs. J. Brown, Battle Creek, best seedling verbenas, . 1 00

No. 329. " " best and greatest variety of petunias, ... 3 00

No. 4. Wm. Balls, Detroit, 2d best and greatest variety of petunias, ... 2 00

No. 330. Mrs. J. Brown, Battle Creek, best seedling petunias, . 1 00

No. 242. Hubbard & Davis, Detroit, 2d best seedling petunias, 50

No. 243. " " best and greatest variety indigenous flowers, ... 3 00

No. 328. Mrs. J. Brown, Battle Creek, 2d best and greatest variety indigenous flowers, ... 2 00

No. 23. John Ford, Detroit, best collection green house plants, 5 00

No. 204. Wm. Adair, " 2d " " 3 00

No. 24. John Ford, Detroit, best collection German asters, ... 2 00

No. 25. " " " pansies, ... 2 00

No. 353. Mrs. J. Brown, Battle Creek, 2d best collection of pansies, ... 1 00

No. 203. Wm. Adair, Detroit, ... best round hand bouquet, 2 00

No. 336. Mrs. J. Brown, Battle Creek, 2d " " 1 00

No. 337. " " best flat hand " 2 00

No. 27. John Ford, Detroit, 2d " " 1 00

No. 335. Mrs. J. Brown, Battle Creek, best basket of flowers, with handle, ... 2 00

No. 335. Mrs. J. Brown, Battle Creek, best basket of flowers, and most beautifully arranged 2 00

No. 360. E. C. Walker, Detroit, best floral design, ... 3 00

No. 7. Wm. Balls, " " ornament, ... 3 00

No. 295. " " 2d " " 2 00

ALFRED BRUSH,
MRS. O. HAMPTON,
MISS PARKER,
MRS. M. H. WEBSTER,
Committee.

CLASS II.—APPLES.

The Committee on this class have not awarded all the premiums on the list, but have confined themselves to cases where there were articles fairly entitled to the premiums.

Amateur List.

No. 183. J. C. Williams, Greenfield, best and greatest variety winter apples, Transactions and 6 00

No. 188. J. W. Dickinson, Hillsdale, 2d best and greatest variety winter apples, ... 5 00

No. 106. Prince Bennet, Ypsilanti, 3d best and greatest variety winter apples, Thomas' Fruits and 3 00

No. 130. David Clarkson, Northville, best and grertest variety autumn apples, Transactions and 5 00

No. 107. Prince Bennett, Ypsilanti, 2d best and greatest variety autumn apples, ... 4 00

No. 193. Albert Terry, Rochester, best 12 specimens winter apples, ... 3 00

No. 113. Prince Bennett, Ypsilanti, 2d best 12 specimens winter apples, ... 2 00

No. 307. Benj. M. Pierson, Livonia, 3d best 12 specimens winter apples, ... 1 00

No. 115. Prince Bennett, Ypsilanti, best 12 specimens autumn apples, ... 3 00

No. 132. David Clarkson, Northville, 2d best 12 specimens autumn apples, ... 2 00

No. 114. Prince Bennett, Ypsilanti, 3d best specimens winter apples, ... 1 00

No. 273. Orson Ingals, Almont, best seedling winter apple, ... Farmer and Gardener, and 2 00

No. 189. Albert Terry, Rochester, best and greatest variety table apples, ... 5 00

No. 133. S. Bowerman, Detroit, 2d best and greatest variety table apples, Thomas Fruits and 3 00

No. 134. Wm. Maiden, Plank Road, 3d best and greatest variety table apples, ... 1 00

Professional List.

No. 71. D. Cook, Jackson, best and greatest variety winter apples, Transactions and 6 00

No. 186. C. A. Chipman, Rochester, 2d best and greatest variety winter apples, ... 5 00

No. 245. Hubbard & Davis, Detroit, 3d best and greatest variety winter apples, Barry's Fruits and, ... 2 00

No. 72. D. Cook, Jackson, best and greatest variety autumn apples, Transactions and 6 00

No. 73. D. Cook, Jackson, best and greatest variety summer apples, Guide to Orchard and 4 00

No. 318. D. Cook, Jackson, best 12 specimens winter apples, 3 00

No. 248. Hubbard & Davis, Detroit, 2d best 12 specimens winter apples, ... 2 00

No. 249. Hubbard & Davis, Detroit, best 12 specimens autumn apples, ... 3 00

No. 317. D. Cook, Jackson, best 12 specimens summer apples, 3 00

GEO. V. N. LOTHROP,
J. E. INGLINFRITZ,
E. S. STOW,

Committee.

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CLASS III.—PEARS.

The Committee on pears beg leave to report in favor of the following awards of premiums:

Amateur List.

No. 274. H. Walker, Detroit, best and greatest variety of pears, Text Book of Agriculture and 5 00

No. 364. M. S. Gillet, Port Huron, 2d best and greatest variety pears, Horticulturist and 3 00

No. 261. George Wheaton, Detroit, 3d best and greatest variety pears, Barry's Fruit Book and 2 00

No. 275. H. Walker, Detroit, best collection of autumn pears, ... Landscape Gardening and Architecture.

No. 261. George Wheaton, Detroit, 2d best collection of autumn pears, ... Horticulturist.

No. 180. Alex'r Melvin, Detroit, best 6 specimens of autumn pears, ... $3 00

No. 276. Sam'l L. Mellis, Detroit, 2d best 6 specimens of autumn pears, ... 2 00

No. 136. Thos. G. Angel, Detroit, 3d best 6 specimens of autumn pears, ... 1 00

No. 277. H. Walker, Detroit, a fine collection of winter pears, ... Hovey's Magazine.

Professional List.

No. 195. William Adair, Detroit, best and greatest variety of pears, Thomas Fruit Book, and 5 00

No. 195. Wm. Adair, Detroit, best collection of autumn pears, ... Landscape Gardening and Architecture.

No. 195. William Adair, Detroit, best 6 specimens of autumn pears, ... 3 00

No. 254. Hubbard & Davis, Detroit, 2d best 6 specimens of autumn pears, ... 2 00

No. 257. James Dougall, Windsor, C. W., 58 varieties of pears, very fine, equalling in every respect those of any collection before the Committee, ... 5 00

JOHN S. BAGG,

Chairman of Committee.

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CLASS IV.—MISCELLANEOUS FRUITS.

The committee on miscellaneous fruits, present the following report:

No. 192. Albert Terry, Rochester, 12 quinces, 1st premium, $3 00

No. 42. H. H. LeRoy, Detroit, 12 quinces, 2d premium, Hovey's Magazine.

No. 278. H. Walker, Detroit, 12 quinces, 3d premium, ... 1 00

No. 187. Mrs. Caroline Casky, Pontiac, 1 peck quinces, 1st premium, ... 3 00

No. 42. H. H. LeRoy, Detroit, 1 peck quinces, 2d premium, .. 2 00

No. 215. J. L. Stout, Troy, 1 peck quinces, 3d premium, ... 1 00

No. 120. John Hatcher, Detroit, best collection of good native grapes, ... 5 00

No. 158. John Palmer, Detroit, best dish of good native grapes, $3 00

No. 259. Mrs. Thomas Palmer, Detroit, 2d best dish of good native grapes, ... Buchanan on the Grape.

No. 139. Thomas G. Angel, Detroit, 3d best dish of good native grapes, ... 1 00

No. 352. John Roberts, Detroit, best and most extensive collection of foreign grapes grown under glass, ... 5 00

No. 138. Thomas G. Angel, Detroit, 2d best and most extensive collection of foreign grapes grown under glass, Hoar on the Grapevine and 2 00

No. 350. Hiram Walker, Detroit, best dish foreign grapes grown in the open air..... 2 00

No. 141. Thomas G. Angel, Detroit, best specimen nutmeg melon, ... 2 00

No. 102. John S. Bagg, Detroit, 2d best specimen nutmeg melon, 1 00

No. 100. " " best 2 musk melons, ... 2 00

No. 29. Wm. Balls, Detroit, 2d " " 1 00

No. 321. Jereh. Brown, Battle Creek, best 2 specimens of water melon, ... 2 00

No. 255. Hubbard & Davis, Detroit, 2d best 2 specimens of water melon, ... 1 00

GEORGE DUFFIELD,
Chairman of Committee.

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CLASS V.—VEGETABLES.

The committee on vegetables beg leave to report that they have examined the various articles on exhibition, and award premiums as follows:

No. 9. Wm. Balls, Detroit, best 12 blood beets, Transactions and $2 00

No. 10. Wm. Balls, Detroit, best 12 turnip rooted beets, Transactions, and 1 00

No. 12. Wm. Balls, Detroit, best 12 hollow crowned parsnips, 2 00

No. 13. " " best 12 heads celery, Transactions and 3 00

No. 226, Hubbard & Davis, Detroit, 2d best 12 heads celery, $2 00
No. 31. John Ford, Detroit, best vegetable eggs, ... 2 00
No. 34. " " 1 peck sweet potatoes, Transactions and 3 00
No. 40. John Ford, Detroit, 6 stalks rhubarb, ... 1 00
No. 207. J. L. Stout, Troy, 1 peck white turnips, 1st premium, 3 00
No. 37. John Ford, Detroit, 1 " 2d " 2 00
No. 151. John Kirk, Detroit, 1 peck yellow turnips, 1st prem., 3 00
No. 162. Thomas Hopson, Detroit, ½ peck Lima beans, 1st premium, ... 3 00
No. 38. John Ford, Detroit, ½ peck Lima beans, 2d premium, 2 00
No. 284. Hiram Walker, Detroit, ½ peck Lima beans 3d prem., 1 00
No. 67. Robert R. Briggs, Romeo, 1 peck table potatoes, 1st premium, ... 3 00
No. 314. J. B. Springer, Livonia Centre, 1 peck table potatoes, 2d premium, ... 2 00
No. 319. Jereh. Brown, Battle Creek, 1 peck table potatoes, 3d premium, ... 1 00
No. 152. E. C. Roberts, Salem, 1 peck seedling potatoes, 2 years growth, 1st premium, ... 4 00
No. 153. E. C. Roberts, Salem, 1 peck seedling potatoes, 4 years growth, 2d premium, ... 3 00
No. 227. Hubbard & Davis, Detroit, 1 peck seedling potatoes, 3d premium, ... 2 00
No. 229. Hubbard & Davis, Detroit, 3 autumnal marrow squashes, ... 2 00
No. 230. Hubbard & Davis, Detroit, 3 vegetable marrow, ... 1 00
No. 264. Wm. B. Smith " 2 squashes, Transactions and 1 00
No. 323. Jereh. Brown, Battle Creek, 12 carrots, ... 2 00
No. 269. George Crabb, Detroit, 12 early horn carrots, ... 2 00
No. 271. " " ½ peck yellow onions, ... 2 00
No. 272. " " ½ peck red onions, ... 1 00
No. 285. H. Walker, Detroit, 1 doz. silverskin onions, Transactions and 2 00
No. 268. George Crabb, Detroit, 6 cabbages, 1st premium, Transactions and 3 00

No. 349. E. R. Post, Detroit, 6 cabbages, 2d premium,..... $2 00
No. 16. Wm. Balls, Detroit, ½ peck tomatoes, 1st premium, Transactions and..... 2 00
No. 230. Hubbard & Davis, Detroit, ½ peck tomatoes, 2d prem., 2 00
No. 263. Wm. Lowes, Birmingham, 12 ruta bagas, 2d prem., 2 00
No. 70. R. R. Briggs, Romeo, best and greatest variety culinary vegetables, Transactions and..... 5 00
No. 31. John Ford, Detroit, 2d best and greatest variety culinary vegetables, Transactions and..... 3 00

The following articles being from another State, though they are the best exhibited, they could not compete for the premiums. The Committee recommend that a discretionary premium be awarded to them.

Nos. 78, 81, 82, 85, 86, 90, 94. S. V. Malcomb, Cleveland, Ohio, 12 carrots, 12 parsnips, white onions, yellow onions, 12 roots salsify, 1 peck sweet potatoes,..... Diploma.

All of which is respectfully submitted,

JOHN WINDER,
Chairman of Committee.

DIVISION H.—GRAIN, FLOUR, SEEDS, BREAD & FIELD CROPS.

The Committee on Division H, beg leave to report that they found a very meagre competition in many articles, particularly flour and wheat, there being but three barrels of flour entered, one sample of winter wheat, and one of spring wheat, both were excellent specimens of their kind; very few oats and no barley or rye.

We have awarded the following premiums:

No. 24. J. D. Williams, Dexter, 2 bushels white flint wheat, 1st premium,..... $5 00
No. 19. Thos. Hopson, Detroit, 2 bushels spring wheat, 2d premium, Transactions and..... 2 00
No. 43. J. Curtis, Disco, 2 bushels yellow corn, 1st premium, Transactions and..... 5 00

No. 44. J. Curtis, Disco, 2 bushels white corn, 1st premium, Transactions and $5 00
No. 62. S. A. Randall, Brooklyn, 12 ears yellow dent corn, ... 1 00
No. 66. " " 12 " flint corn, ... 1 00
No. 15. Charles A. Jefferies, Dexter, 12 ears white flint corn, 1 00
No. 23. John Kirk, Detroit, 2 bush black oats, 1st premium, .. 3 00
No. 22. " " 2 bush white oats, 1st premium, .. 3 00
No. 40. T. F. Gerls, Troy, " 2d " 2 00
No. 58. J. B. Springer, Livonia Centre, 2 bush white oats, 3d premium, ... 1 00
No. 17. Prince Bennett, Ypsilanti, 2 bush. beans, 1st premium, Transactions and 5 00
No. 18. Prince Bennett, Ypsilanti, 2 bush. marrowfat peas, 1st premium, Transactions and 5 00
No. 38. Wm. Lowes, Birmingham, 1 bush. timothy seed, 1st premium, Transactions and 5 00
No. 2. F. F. Parker, Detroit, 1 bush. timothy seed, 2d prem., 4 00
No. 41. J. L. Stout, Troy, 1 bush. timothy seed, 3d premium, 3 00
No. 1. R. Gillespie, Detroit, 1 barrel flour, 1st premium, Transactions and 5 00
No. 4. H. L. Paddock, Pontiac, 1 barrel flour, 2d premium, . 3 00
No. 11. Bainbridge & Haskins, Detroit, 1 barrel flour, 3d premium, ... 2 00
No. 265. J. L. Stout, Troy, greatest variety of roots for cattle, 5 00
No. 47. Ferrand Gaines, Dearborn, 2 loaves milk or salt rising bread, ... 2 00
No. 36. Wm. Lowes, Birmingham, 2 loaves milk or salt rising bread, ... 1 00
No. 54. John Johnson, Detroit, 2 loaves yeast bread, 1st premium, ... 2 00
No. 55. Mrs. H. Walker, Detroit, 2 loaves yeast bread, 2d premium, ... 1 00
No. 22. John Kirk, Detroit, corn bread, 1st premium, ... 2 00
No. 57. Mrs. H. Walker, Detroit, corn bread 2d premium, ... 1 00
Nos. 28, 29 and 30. Owens & Barns, Detroit, 1 box Boston crackers, 1 box soda crackers, 1 box lemon crackers, ... Diploma.
No. 32. Owens & Barns, Detroit, 2 loaves bread.

This bread the committee consider very superior, but unaccompanied by a description of the method of making, they could not award it a premium, but recommend it to the notice of the executive committee.

C. A. CHIPMAN,
Chairman.

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DIVISION I.—MISCELLANEOUS ARTICLES.

The committee on miscellaneous articles beg leave to report the following awards:

No. 67. A. Walcott, Detroit, 20 specimens sawed lumber,...Diploma.
No. 68. A. Walcott, Detroit, 15 specimens dressed lumber, 1 planing machine, Diploma and..... $5 00
No. 1. E. L. Evans, Easton, Pa., India rubber washing machine,...Dip.
No. 2. R. C. Barker & Co., Detroit, wrought iron safe, with patent bank lock,.....Transactions.
No. 7. Wm. Phelps, Detroit, case toys and fancy goods,..Transactions.
No. 8. O. Bellows & Co., Detroit, India rubber piano cover,..Diploma.
No. 12. O. Bellows & Co., Detroit, 2 pieces gutta percha,... do
No. 14. O. Bellows & Co., Detroit, 1 pair India rubber pants, 2 vols. Transactions.
No. 17. T. S. Balsley, Pittsburgh, Pa., collection of stone ware,...Dip.
No. 25. James Flower & Bro., Detroit, collection of brass work, Diploma and..... 10 00
No. 26. J. H. Wineman, Detroit, collection of birds,..... 1 00
No. 28. John Essick, Detroit, 1 bottle wine from wild grapes, 1 year old,..... 1 00
No. 100. Mrs. Sam'l L. Mills, Detroit, 1 bottle wine from wild grapes, 3 years old,.....Medal.
No. 29. Wm. Shulthies, Detroit, 3 marble mantles,..... 5 00
No. 30. " " 1 marble monument,.....Diploma.
No. 32. Croul Brothers, Detroit, 1 pair African cattle horns,...Trans.
No. 33. John Velter, Detroit, 1 case common and fancy soap, Diploma.
No. 34. E. P. Tenny, Racine, Wis., combined manifold electro conductor,.....Diploma
No. 37. J. Schoonacker, Detroit, 1 small model of a church,....Trans.

No. 38. E. J. Wooley, Detroit, fire and burglar proof safe, Lillie's patent, ... Diploma and 3 vols. Transactions.
No. 39. H. W. Brown, Pleasant Mount, Pa., Lempcke's patent wind mill, ... Diploma.
No. 40. Mrs. P. Klein, Detroit, 1 case hair ornaments, ... do
No. 41. A. Sherwood, Detroit, 1 case Sherwood's improved points for lightning conductors, Diploma and $1 00
No. 42. D. T. Barrett, Detroit, several varieties of shirts, Diploma and 3 00
No. 43. S. W. Patchen, Detroit, patent weather strips for doors, and patent window springs, ... Diploma.
No. 45. Loomis, Wright & Co., Cleveland, Ohio, case dentistry, do
No. 46. McDonald & Finley, Detroit, case of book binding, ... do
No. 47. J. W. Hodgetts, Detroit, 1 mineral water filterer, 1 water cooler, 2 sets toilet ware, ... Diploma.
No. 49. Hayden & Fairbanks, Detroit, parlor, cook and hall stoves, ... Diploma.
No. 53. Mrs. Eliza Morton, Detroit, 1 English lace pillow, ... "
No. 54. M. W. Howland, Detroit, 1 model Stevens & Kidder's shingle machine, ... Diploma.
No. 55. Palmer & Whipple, Detroit, bank ledger, full Russia, Diploma and 3 00
Nos. 57, 58. C. F. Lange, Detroit, 1 needle rifle, 1 needle gun, small size, ... Diploma.
Nos. 59, 60, 61, 62, 63. Frost & Messenger, Detroit, curled hair mattress, excelsior mattress, rattan mattress, curled hair in rope, excelsior in bale, ... Diploma.
No. 65. George Schuler, Detroit, 1 coffee clock, ... "
No. 66. Raymond & Cook, Detroit, 1 case books, ... "
No. 70. Wm. Fernald, New York, knife and scissors sharpener, ... Transactions.
No. 71. O. D. Hamilton, Rochester, N. Y., 2 boxes erasive soap, ... Transactions.
No. 74. H. Hallock, Detroit, silk, cane, iron handle umbrella, ... Diploma.
No. 76. W. E. Peters, Detroit, 1 small marble monument, ... 1 00
No. 79. J. B. Johnson, Cleveland, Ohio, Lake Huron grind stones, Diploma and 1 00

No. 80. Scott & Hedges, Cincinnati, Ohio, dinonometer for testing the draft of plows, ... Transactions.

Nos. 81, 82. E. Geisert, New York, cage Paris birds, cage birds, ... Transactions.

No. 153. M. H. Webster, Detroit, 1 Resor's patent globe furnace, ... Diploma.

Nos. 85, 86. Duryee & Forsyth, Rochester, Y. Y., 2,000 lbs. lever scales, dock scales, ... Diploma.

No. 93. C. & J. Jenks, Detroit, 1 engine lathe, ... "

No. 96. Mrs. Sam'l L. Millis, Detroit, 1 glass jar puzzle, .. Transactions.

No. 101. D. R. Prindle, East Bethany, N. Y., Prindle's patent self-sustaining and portable or hurdle fence, ... Diploma.

No. 109. A. M. Bodwell, Ann Arbor, improved bran duster, Diploma and 5 00

No. 110. T. Duel, Detroit, match splitting machine, ... Diploma.

No. 112. T. H. Armstrong, Detroit, 1 case Odd Fellow's regalia, ... Diploma.

No. 114. T. H. Armstrong, Detroit, 1 case Masonic regalia, .. Medal.

No. 115. " " 1 case Odd Fellow's jewels, ... 2 vols. Transactions.

No. 116. Eagle & Elliott, Detroit, 1 sole leather trunk, .. Transactions.

No. 117. " " 1 silk rubber coat, .. Transactions.

No. 118. L. B. Corbin, Constantine, Goodwin's centre vent combination water wheel, ... Diploma.

No. 119. Lewis Benham, Naugatuck, Conn., 1 spoke machine, and for turning irregular forms, ... Diploma.

No. 121. M. J. Cook, Detroit, 1 bottle indellible ink, .. Transactions.

No. 122. " " 1 bottle writing fluid, ... Diploma.

No. 123. M. H. Webster, Detroit, 2 bronze lions, ... Transactions.

No. 125. " " 2 garden vases, 2 vols. Transactions.

No. 126. " " 1 cooking stove, "Young America," ..... Transactions.

No. 127. Wm. Brown, Battle Creek, 1 thresher and separator, Diploma and 5 00

No. 128. Wm. Brown, Battle Creek, 1 eight horse power, Diploma and 5 00

No. 129. Wm. Brown, Battle Creek, 1 geared jack, Diploma and 5 00

No. 130. J. H. Allison, Detroit, 1 case gold pens, chronometer and diamond work, ... Diploma.

No. 131. S. P. Lord, Detroit, self-setting saw mill dogs or blocks, ... Diploma.

No. 132. A. Sheley, Detroit, 1 M sawed shingles, ... $5 00

No. 134. A. Blackie, St. Clair, 1 single and 2 double lath mills and bolting machine, Diploma and 5 00

No. 135. Blakie & Clark, St. Clair, 2 double operating lath mills, ... Diploma.

No. 140. J. R. Cunningham, Detroit, model steamboat, ... Diploma.

No. 144. Darwin White, " 2 snatch blocks, ... $1 00

No. 145. " " 2 iron strap blocks, ... Diploma.

No. 146. A. R. Swift, Detroit, 25 horse power engine, Diploma and $10 00

No. 193. Jackson & Wiley, Detroit, 1 steam engine 12 inch cylinder, 24 inch stroke, ... 5 00

No. 147. E. Wyncoop, Detroit, self-heating smoothing iron, ... Diploma

No. 148. John Daines, Birmingham, specimens of drain tile, Diploma and $3 00

No. 150. A. Randall, Cleveland, Ohio, 1 shingle machine, riving and shaving, ... Diploma.

No. 151. T. A. Wilkinson, Detroit, specimens of engraving on stone and metals, lapidary work, ... 2 vols. Transactions.

No. 154. Wm. S. Wood, Detroit, specimens of native copper and stamp work, from Evergreen Bluff mine, Diploma and 5 00

No. 188. C. A. Trowbridge, Detroit, 3 bars charcoal hammered iron from Collins Iron Company, Marquette Co., Diploma and 5 00

No. 189. W. S. Wood, Detroit, specimens of native silver ore, from Evergreen Bluff mine, ... Diploma and Medal.

No. 155. Peter Rodier, Detroit, 1 small locomotive, ... Medal.

No. 156. Joseph Northrop, Detroit, 5 butchers cleavers, ... 5 00

No. 159. Mrs. H. Walker, Detroit, 1 bottle cider vinegar, ... Diploma.

No. 162. Henry Metz, Detroit, Metz's fire proof composition roofing, ... Diploma.

No. 164. George White, Detroit, plumbing work to fountain, Medal and 5 00

No. 165. Wm. C. Clayton, Detroit, mason work to fountain, Diploma and $5 00

No. 166. Andrew Bain, Ridgeway, 1 platform bee hive, 4 hives, Sylvester Davis' patent, Claremont, N. H., ... Diploma.

No. 171. Z. Caswell, Birmingham, 1 cross cut saw mill for sawing wood from logs, 2d premium, ... 3 00

No. 172. Z. Caswell, Birmingham, a two or four horse power, Diploma.

No. 174. George N. Bowles, Kalamazoo, cross cut sawing machine and log carriage, 1st premium, Diploma and 5 00

No. 175. C. & I. Jenks, Detroit, passenger car, parlor and ship brass lamps, ... Diploma.

No. 176. Continental Fire Company, Detroit, Continental Fire Engine, ... Silver Medal.

No. 177. A. Marsh, Detroit, improved spring truss, Diploma and 1 00

No. 179. N. Van Brunt, Adrian, 9 cans printing ink, Diploma and 2 00

No. 181. L. Sprague, Wooster, Ohio, Kedzie's rain water filterer, ... Diploma.

No. 184. N. L. Avery, Grand Rapids, specimens ground plaster, 3 00

No. 185. " " gypsum or rock plaster, Diploma.

No. 186. T. Duel, Detroit, apple parer, corer and slicer, .. Transactions.

No. 187. D. W. Stone, Detroit, actual measurement transfer, tailors scale, ... 2 00

No. 191. Mrs. W. W. Murphy, Jonesville, 1 bottle currant wine of 1849, ... 1 00

No. 192. A. Worden, Ypsilanti, 3 joints stove pipe, Diploma and 2 00

No. 196. Cowing & Co., Seneca Falls, N. Y., 2 fire engines, . Diploma.

No. 197. E. O. Crittenden, Marshall, 1 smut machine, ... 5 00

No. 198. Morrison & Conklin, Detroit, 1 case jewelry and silver ware, Diploma and 5 00

No. 199. Mrs. E. F. Haskell, Monroe, collection preserved fruits, ... 5 00

No. 120. E. P. Barrett, Detroit, bird cage and birds, ... Discretionary.

JOHN PATTON,

Chairman of Committee.

REPORT OF THE COMMITTEE ON ESSAYS.

To the Executive Committee of the State Agricultural Society:

The special committee on essays respectfully report, that the essays presented for their consideration were six in number, and on the following subjects, viz:

No. 1. On Thorough Draining.

No. 2. On Manures, and their Application.

No. 3. On the Cultivation and Management of Wheat.

No. 4. On Fruit and Shade Trees.

No. 5. On the Potato.

No. 6. On the Cultivation of Wheat.

The committee after much consideration, came to the conclusion to adopt, as the rule of their action in reference to these essays, the following principles, which were in substance adopted by the committee on essays, for the year 1853.

1st. To entitle the essay to a premium, it must not only be the best one offered upon any given subject, but it must also be of such merit in its subject matter and composition, as would fairly entitle it to a premium. It must for this purpose contain facts, or establish a principle before unknown, or not generally known; or at least, if it establish no new principle, that it should give facts or experiments, explaining or illustrating those already known, or tending to establish what was before doubtful.

2d. Or if it profess to establish no new fact or principle, nor give any new illustration of what is already known, it should at least, embody and classify in an unusually clear, concise and authentic manner, whatever is known upon the subject of which it treats; it should avoid all *vague* and *uncertain* theories and conjectures, and be well sustained by established facts of general authority in the agricultural community.

Under these rules, which the committee regard as both safe and judicious, they have, after careful examination, agreed to recommend that premiums be awarded as follows:

To Edward Mason, of Detroit, for Essay on Thorough Draining, $15 00

" " for Essay on Manures and their Application, ---------- 15 00

To Edward Mason, of Detroit, for Essay on the Cultivation and Management of Wheat, ... $15 00

JUSTUS GAGE,
A. Y. MOORE,
J. C. HOLMES,
Committee.

To the County Agricultural Society that shows the most efficient organization, the decision being based upon the annual reports of the Societies for 1855, the premium of twenty copies of the Society's Transactions, is awarded to the Kent County Agricultural Society.

J. C. HOLMES,
Secretary.

PRIZE ESSAY ON THOROUGH DRAINING.

BY EDWARD MASON, OF DETROIT.

The utility of drainage is too evident to require proof; nature drains on a magnificent scale. The Amazon, the Mississippi, the St. Lawrence, in fact every river is a main drain, and tributary streams are frequent, or minor drains, conveying the water of their several vallies to the main trunk.

The necessity of artificial drainage was understood at a very early age; Palladius, Columella and Pliny describe various methods of constructing open or covered drains. Drainage works have been executed in England by the Romans when they occupied that country; among these may be mentioned Romney Marsh, and the fosse-dyke at Lincoln.

Draining was not much practiced in England during the sway of its Saxon, Danish, or Norman conquerors; English history up to the time of Queen Anne, and even later, is filled with the records of domestic war. The sword and the plow cannot work together, neither can the spear and the draining spade. Ceres and her industrious train fly from the fields at the approach of Mars. How fortunate are American farmers, to enjoy the blessings of peace, whilst the nations of Europe are suffering the horrors of war.

Great benefits are conferred on American farmers by means of the Patent Office. There art stands at the right hand of agriculture, bringing from her laboratories every useful invention; and commerce on the left, presenting the treasures of foreign countries, in the shape of animals, plants and seeds.

The utility of deep drainage seems not to have been discovered in England until the middle of the seventeenth century, and to Captain Walter Bligh belongs the merit of having brought it before the public. He compiled a valuable work on draining, called "The Improver Im-

proved," which contains many useful hints. His plans for draining swamps and meadows are, even at the present day, deserving of attention. He says your draining trench must be so formed that it go to the bottom of the cold, spewey, moist water, that feeds the flag and the rush: "yea, should the corruption that feeds it, be a yard or four feet deep, to the bottom thou must go."

Captain Bligh gave a good description of covered drains; he says they are more expensive than open drains, but more capacious and durable, and he recommends to have them filled with good faggots of elm, willow, alder or thorn, and in firm ground with pebbles or flint stones, "and thus," he says, "fill the bottoms of the trenches about fifteen inches deep, and take the turf and plant it as aforesaid, with the green side downwards, being made fit for the trench, *so that it may join close when laid down.*" These directions are carefully observed by the best drainers of the present day, but a smaller depth of stones has been found to answer. Captain Bligh's system was adopted in several parts of England, but on a scale so limited, that on its revival by Mr. Smith, of Deanston, it has been claimed as a discovery, and the honors due to the ancient inventor, have been carried away by the modern improver.

There can be no doubt but that Mr. Smith carried the system to a very high degree of perfection, and has been the means of improving the science of draining.

Mr. Pusey, writing in 1842, seven years after the Deanston system had been promulgated, says, he knows the system has been long practiced in England to its fullest extent, especially in Suffolk and Essex. In proving that Mr. Smith's system is not new, he says he does not want to lower that gentleman's claim to our thanks, for he probably invented it also, or at all events carried it out with an energy which made it new in his hands; but he thinks that the fact of its previous practice in Suffolk and Essex, is worthy of notice for two reasons: first, that any new method however highly recommended, should be received with caution so long as it is new, and consequently that the best praise by which any system can be recommended is, not that it *is new*, but that *it is old and tried.* The other reason is, that here was a plan which was regarded as novel, yet had been established and employed for more than a century, at no great distance from London, and this is

by no means a singular proof, how little the farmers of one part of a country know of those plans which are practiced in another part of the same nation. Any opinions advanced by Mr. Pusey are deserving of attention, he has for a long time occupied a prominent place among the leading agriculturists of Great Britain: I was sorry to perceive his name in the obituaries of June, 1855. His memory will be revered by every lover of agricultural improvement.

Before the operation of draining is commenced, the nature of the strata should be closely observed, in order to detect the cause which renders draining necessary. Some soils are wet by springs, which rising in the higher parts of the field, spread over the surface and keep the soil in a constant state of moisture.

Rain water, not having a proper fall, or outlet, or being prevented from sinking into the earth, by an impervious subsoil, sometimes causes much injury to vegetation.

In some cases, rivers and creeks are obstructed by dams or floodwood, and the water rises and flows back on the adjoining plains. From whatever source it arises, stagnant water is injurious to animal and vegetable life.

Various plans of draining have been invented, or recommended by scientific men. I will give a description of every improved method. From these plans the farmer can select whatever system is best suited to his locality. It is wrong to adopt any plan at the recommendation of its inventor, without being fully satisfied of its superiority.

THE ELKINGTON SYSTEM OF DRAINING

Is so called after Joseph Elkington, a farmer of Warwickshire, England, who in 1764 accidentally discovered a system of draining, which was very much thought of at the time, and very extensively practiced in England for many years after.

Elkington was plagued with a wet farm, and tried many ways of draining it. Once when digging a deep drain in one of his fields, he forced a crow bar through the bottom of the trench, and on withdrawing it was surprised to find it followed by a copious and permanent supply of water. He took the hint and improved upon it. He studied the geological structure of the earth, and the nature of the several strata, endeavored to catch the springs at the fountain head, and to convey them away by judicious draining. His system principally consisted

in tapping the ground with a large auger, and he possessed extraordinary skill in discovering *the exact place* for performing the operation. Elkington managed to dry soils which had, up to his time, been completely saturated with water.

Another part of his system consisted in boring through a hard subsoil into a gravelly or porous stratum, and letting the water run down in the apertures thus formed; many basins or hollow places have been effectually drained in this way.

Artesian wells (so called from Artois, a province of France, where they were invented) seem to have been constructed on a plan similar to that of Elkington. A well of this description at Paris, when sunk to the depth of 1500 feet, sent up a powerful jet of water, in which were several fishes. That well has been finished recently, after having been sunk to a depth of 1700 feet. It now sends up with immense force a column of water nine inches in diameter, which is conveyed in a copper tube to a height of 122 feet above the surface, from which elevation it is conveyed to the ground again, and distributed all over the city.

The Parisian *savans* assert that the force which projects the water to such a height must be volcanic, and an immense quantity of mud having been thrown up by the jet, they conclude, that the auger has penetrated into the soft central mass of the earth.

At all events, the long established theory of Artesian wells seems to have been *shaken and undetermined* by the Parisian borers.

In some parts of England, where from the nature of the land a proper fall or outlet for drainage cannot be obtained, the purpose is answered by sinking wells to the depth of 15 or 20 feet. These being sunk through a hard subsoil into a porous stratum, swallow the water; and into them, drains are conveyed from the surrounding fields. In certain parts of Michigan, such wells might answer a similar purpose.

THE DEANSTON SYSTEM

Is named from "Deanston," near Stirling, in Scotland, the residence of Mr. James Smith, the celebrated drainer.

Mr. Smith was not originally a farmer, but was brought up to the manufacturing business. He took a farm near his factory, but found the soil so wet that it was *totally unfit* for agricultural purposes. He commenced to drain and improve it, and his efforts were crowned with

success. He published his system to the world, and continued to improve it for many years.

The principles of Smith's system seem to have been known before his day, but it remained for him to bring them together, and form them into a regular plan, the chief peculiarity of which consists in the *direction of the drains*, namely, up and down the declivity.

The main drains always run through the lowest parts of the field, and are *always covered;* ditches, or open drains are found to be much more liable to obstruction than those which are covered. If the field is large, it will be necessary to have sub-drains judiciously placed, so as to receive the water of the small drains, and convey it to the main drain or to the outlet.

Smith made his drains 30 inches deep, 12 inches wide at top, and 4 inches at bottom; the sides being sloped wedgelike. The main drains must always be at least six inches deeper than the parallel drains.

Smith placed his drains at intervals of 15 feet; but it should be borne in mind that his soil was extremely wet.

The soil in Michigan is generally wet by surface water, or that which arises from *rain and snow*, and when this is absorbed or removed, the soil sometimes becomes *too dry*. It is evident that in Michigan, drains are principally required for the purpose of removing surface water, and they may be placed at much greater distances, than if the land were wet by springs. In many cases they may be placed at intervals of 4 rods, or 66 feet asunder.

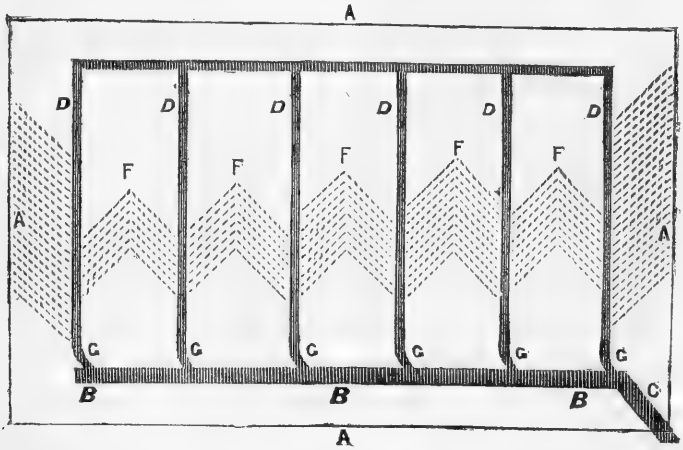
I am an advocate for deep drainage where such is practicable, but in level districts it will sometimes be very difficult to find a fall, or outlet for drains which exceeds the depth of three feet.

In former times, wide, open drains, were made use of, but modern skill has discovered that narrow, covered ones, are much better; as the water, when confined in the bottom of a narrow drain, rises, and runs with a stronger current, than if it were permitted to spread on the bottom of a wide drain. It is thus enabled to clear away sand and other obstructions and to make a passage for itself.

In Michigan the land is generally *too dry* in summer, and *too wet* in the spring and fall; thorough draining will bring it to an evener temperature or condition. The removal of stagnant water will have the effect of increasing the fertility of the soil, and the salubrity of the climate.

Ague and fever are principally caused by the noxious exhalations evolved from stagnant water, during its evaporation by the solar heat. The Deanston system seems to be best adapted to the soil of Michigan, and it will no doubt, be brought into general use in this State.

The following cut represents a field drained according to this system:



In this cut *a. a. a.*, denote the fences, *b. b. b.* the main drain, *c.* the outlet, *f. f. f.* the water, falling from the centre of each interval into the minor drains, *g. g. g.* are slight turns given to the small drains, at their junction with the main drain; these turns are given in the direction of the current, in order to prevent the water from running out too rapidly against the sides of the main, and thereby causing obstructions by depositing sediment, &c.

The parallel drains run *up and down the declivity, instead of across the slope or inclination* of the ground, as was the case in the old systems. In the Deanston plan, the water runs from the centre of each space into the drains, in the old system it falls only from *one side* of each space, and sometimes from one drain into another.

The drawing represents the Deanston system in its simplest form, it will be easily understood that in large plains, and in uneven ground, several sub-mains will be necessary, and these must be judiciously placed. *The small drains must not be of too great a length, lest the quantity of water become too great for them to carry.* The length of the small drains, and the dimensions of the main and sub-mains must

be regulated according to the size of the field, and the quantity of water to be removed.

If stones are used, the Deanston system requires that they should be broken small, as large stones will choke narrow drains. If labor cannot be procured to break the stones, the drains must be made wider at bottom, that they may be in proportion to the size of the stones. The smallest stones should always be placed in the bottom of the drain, the larger over these, and then small ones again, in order to level the filling, and prepare for the sod which covers the stones. These remarks allude to unbroken or field stones; when stones are broken and properly prepared, they are all nearly of the same size.

Six or eight inches in depth, of well broken stones will be sufficient for a small drain; *ten or twelve inches* will suffice for a main drain. The more stones the better, but they should not be allowed to reach higher than two feet from the surface; if they rise higher, they will be liable to be disturbed by the subsoil plow, or damaged by the feet of horses or cattle.

At two feet beneath the surface, the stones will be quite safe, and the sod that covers them will remain undisturbed. One of the nicest points in stone draining, is to seal up the stones so correctly with sods, that the smallest particles of sand or clay cannot find their way into the drains. The most celebrated drainers are of opinion, that water should not be allowed to enter drains from the top or mouth of the drain, as it always carries down fine particles of sand, or clay, which ultimately prevent the flow of water at the bottom of the drains.

When tiles are used they should be carefully and correctly laid down. I prefer pipes to the present horse-shoe shaped tile, so much used in Michigan. Pipes of one inch in diameter, are recommended by some experienced drainers, as being perfectly sufficient. Among the advocates of one inch pipes, is Mr. Mechi, of Tiptree Hall, England; he has had considerable experience in draining, and says that one inch pipes have always performed their work well, and he uses no others. On the other hand, Mr. Webster, an English gentleman of great experience in draining, calls them one-inch absurdities, and says he has laid down 700 miles of drains with double or split tile, 2 inches by 2½ in diameter. These tiles come from the machine as pipes or cylinders, but having received a longitudinal cut, in their passage through the moulds, they

separate in the process of drying. Mr. Webster says he lays the bottom halves first, and when these are properly packed and bedded, he caps them by putting on the upper halves. In many cases of dispute, *truth lies between the contending parties*, and we may safely set down 1½ inch pipes as the best and safest size that can be used in draining.

The following cuts represent various kinds of draining tile:

Inch Pipe.

Two Inch Pipe.

Split Pipe.

Horse-shoe Tile.

Draining tiles are sometimes manufactured with soles, and sometimes without them; tiles without soles are of little use, loose soles are troublesome and expensive—a solid casting of tile and sole in one piece, is much the better way.

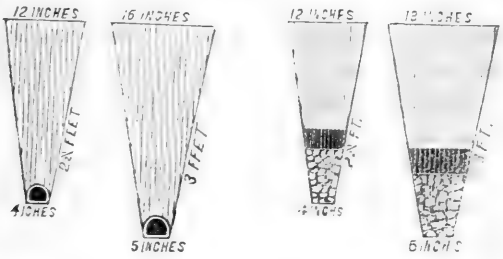
Draining tiles are manufactured in this State by Mr. John Daines, of Birmingham, Oakland county. He constructs tile machines for sale. When draining becomes general in this State, many pipe and tile manufactories will be required, in order to furnish supplies of these important articles. Pipes will be found to answer much better than tiles, and they should always be used in the minor drains.

A four inch tile will be found sufficient to discharge the water of an ordinary main drain; in some cases one of six inches in diameter will be required. In tile drains the sides should be sloped from the top to the bottom, so as to terminate so narrow that the tile will have room to be laid and bedded properly. The pipes, or tiles should not *press against the sides of the drain*, or be laid over hollows in the bottom; they should have a smooth and even bed. Tile drains are liable to become choked with the roots of trees and plants, which sometimes penetrate into the tubes and fill them up; drains should not be constructed close to trees, lest they be injured by them. Mice and rats, and sometimes rabbits enter into drains and cause obstructions, so also do toads, frogs, etc. On this account the outlet of main drains should always have an iron grating, sufficiently close to keep out all kinds of intruders, and wide enough to admit free egress to the water. If the pipes have

been correctly laid, none of the pests of the farm can enter between the joints.

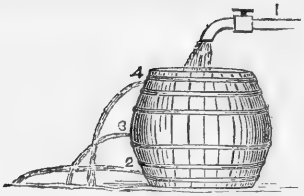
The main drains should be constructed in the lowest parts of the field, and a proper outlet for carrying away the water provided; *without this, draining cannot be effected.* A calculation should be made of the quantity of water likely to flow into the main drains and tiles sufficient to carry it away, should be provided. Tile drains should not be constructed so as to discharge their water into stone drains, for they are apt to carry sand and sediment sufficient to choke the stone drains. Drains made of stones may be permitted to discharge into tile drains, for the water in them is generally well filtered and free from sediment.

The following figures represent stone and tile drains:



Mr. Parks the talented engineer of the Royal Agricultural Society of England, recommends that drains should be made *four feet deep* and *forty feet asunder.* He says he finds that deep drains run sooner after rain than shallow ones. A circumstance which is thus accounted for: when water falls on the surface it sinks directly into the soil, and continues to descend until it meets an impervious subsoil, here it stops and according as it receives supplies from above, rises towards the surface. The deeper the drain is, the sooner the rising water will reach it, and the shallower the drain, the longer will the water be in coming up to it. It will be seen by this that the water enters at the bottom and sides instead of at the top of the drain. The deeper the drain is, the greater will be the pressure of the water from the surface, and consequently the more rapidly will it run.

The following figure will serve to illustrate this law of fluids:



This drawing represents a cask. No. 1 is a pipe supplying it with water. No. 2 is an aperture near the bottom of the cask, through which the water runs with great force. No. 3, is an opening higher up, through which the water runs with diminished force, and No. 4 is an opening near the mouth of the cask, through which the water runs with a still less force, in consequence of the pressure of the water being much less there than in the other places. If the three apertures are not able to discharge the water supplied by No. 1, it will rise and flow over the mouth of the cask, just as water rises to the surface of land when sufficient drains are not provided to carry it away. This illustration will serve to explain the mysteries of deep and shallow drainage, and to show the reason why *deep drains run sooner and stronger than shallow ones.*

SIZE AND SHAPE OF DRAINS.

A great deal has been written on draining during the last ten years, and a *flood of light* has been let in upon that subject. Yet there is still room for improvement, narrow drains have entirely superseded wide ones, and are found to work much better. On the same principle, an improvement might be made in *the shape of the drain tile;* instead of being wide at bottom and narrow at top, it should be shaped exactly the reverse, and it ought to correspond with the wedge shape of the modern drain.

Pipes are better calculated to carry off water than horse-shoe tiles, as on account of their cylindrical form a small amount of water will run in them.

Wedge shaped drains are much better than those which are constructed with perpendicular sides, as on account of their sloped shape, the ground does not *press continually on the filling*, it becomes arched, and the bottom of the drain is protected from injury.

I have had considerable experience in draining, having expended

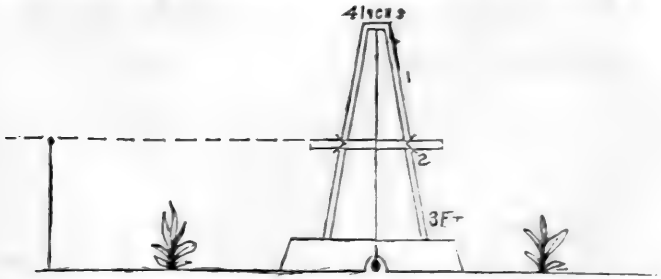
much cash in improving land. I have also been one of three inspectors of drainage who were appointed to award the Gold Medal of an Agricultural Society, for "the greatest amount of drainage correctly performed according to the principles of Smith, of Deanston." In this tour of inspection a good opportunity was afforded for seeing a great variety of drainage works. We found that a great many of the drains had been injured by being *left open too long*, and from the effects of heavy rain the sides had "caved in" and caused much injury to the shape of the drains, as well as trouble to the operators.

In some cases the drains had been injured by the carelessness of the workmen, who in filling them, had thrown the stones against the sides of the drains, and battered down portions of clay, and when clay is allowed to mix with the filling-stones, draining is always imperfectly done.

Our instructions were to examine whether the drains had been judiciously laid out according to the nature of the land. To see if they were placed at *proper and regular intervals*, and to ascertain if the stones or tiles, had been correctly laid down, the stones properly covered, and secured with sods before the clay was returned to the drains.

The farmer to whom we awarded the Gold Medal, had carefully complied with all the regulations, and finished the drains in a masterly manner. He had a complete set of draining tools of the newest, and most improved kinds, and took especial care to have material for filling ready to be laid down in the drains, as fast as they were opened and properly levelled.

When large tracts of land are to be drained the services of a civil engineer, will be of much use in laying out the drains and securing a proper outlet. But a great deal of work can be performed by the aid of a very simple implement such as is represented in the following cut:



This is a drain guage as well as a level, and by it the depth and

dimensions of the drain can be accurately determined. The levelling sight being moveable, can be taken off when the guage is required for measuring the drains.

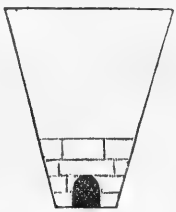
This instrument is extremely useful for laying out drains, and also for levelling them before they are filled.

In draining swamps and running sands, it is very difficult to construct drains that will not be choked by the loose sand or mud of such places. In such cases the bottoms of the drains should be lined with tough sods, so as to make a firm bed for the stones or tiles, and to keep them from being choked with mud or sand; stiff clay will sometimes answer.

A farmer in England succeeded in draining a running sand, by inserting small pipes inside large ones. Narrow stone drains do not succeed well in sandy land, they are very apt to be choked in such places unless proper precautions are taken. Some writers recommend the use of stones and tiles in the same drain, and state that the water running down through the stones has a better chance of entering the tiles. Since the discovery of the fact that water enters from the bottom and sides, instead of from the top of the drain, this system of filling has been abandoned.

Open sewer drains, and double tile main drains are sometimes necessary where large springs exist and much water is to be conveyed away.

The following figures represent open sewer and double tile drains:



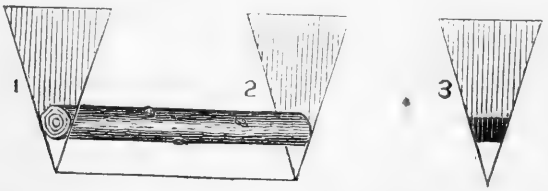
There are but few farms which do not require draining, indeed a certain amount of drainage is necessary *on every farm.* If we want to plant an orchard or lay out a garden, the site of either will be wonderfully improved by draining and subsoiling. Fruit trees of any kind will not thrive well in soil saturated with water. Do we wish to build a house, and expect the locality to be healthy? if so we must drain; as stagnant water whether above or beneath the surface tends to produce ague and fever, and several other diseases.

Perhaps stones cannot be procured, and tile manufactories are too far away. In such cases we must fill our drains with the best materials at hand. I have seen the most scientific systems of drainage in operation and I have marked their superior efficiency; I have also seen a great deal of good performed by very unscientific drains.

The great object of every system of drainage is to remove excess of moisture from land, and if we cannot perform this operation scientifically we must only do the best we can.

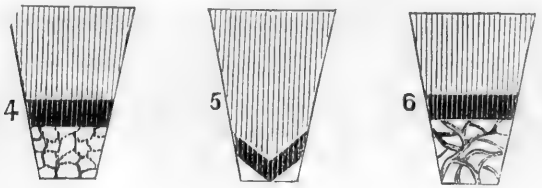
I do not wish to say that drainage should be carried on to excess, or to the neglect of other important farming business; yet every farmer should fully understand that his own health and that of his family, the fertility of his land, and the productiveness of his crops, will be preserved, and increased by the removal of stagnant water.

The following cuts represent rude drains which, in some cases, may be of great use in removing water:



Of these drains, Nos. 1 and 2, are intended to represent wedge drains, into which a small tree has been pressed down, as far as it can be driven. The space underneath is the water course. Drains such as these may be useful in localities where wood *is plenty*, and other materials *scarce*, and if carefully covered, they may last a long time. No. 3, represents a wedge drain into which a sod has been tightly forced or rammed down. The space underneath the sod answers the purpose of an ordinary drain. The black patches in these drains represent tough sods of green sward.

There are many other kinds of temporary drains which may be useful to the farmer. Here are some of them:



No. 4, is a drain filled with unbroken field stones, and it is made wide at bottom in order that the stones may not choke it.

No. 5, is formed by placing two tough sods so as to form an angle, or angles in the bottoms of the drains; the vacant spaces in the corners serve as water courses.

No. 6, is a drain filled with brushwood covered with sods and filled up like other drains. I give these latter specimens merely for the use of those persons who cannot command materials for a more scientific mode of operation.

DRAINING TOOLS.

No work of any kind can be well performed without a good assortment of suitable tools.

Draining plows of various kinds have been invented and introduced to the attention of agriculturists, but as they are generally intended for surface draining they need not be described in this essay.

The subsoil plow has been used for a considerable time, as a powerful auxiliary to the drainer; it is made use of, for the purpose of *stirring up and loosening the subsoil*, without bringing it to the surface, and may be described, as a very strong plow without a mould board, following in the furrow of the common plow, and loosening the soil to the requisite depth. Subsoil plowing should always be performed across the drains, by these means the furrows or tracks made by the subsoil plow will be each a little drain, conveying the water into the parallel drains. Subsoiling should not be performed for a year or two after a field has been drained, as the soil should get time to shrink and open into cracks and fissures before that operation is performed.

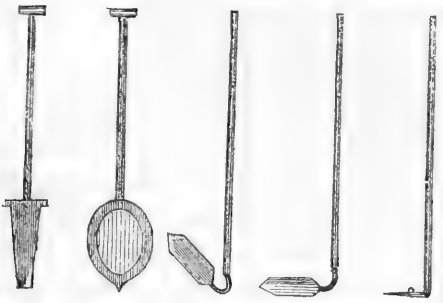
The mole plow has been used in England for many years. A writer in the London Farmers' Magazine states, that drains made by the mole plow in the farm of Thomas Bates, of Kirkleavington, after having lasted for more than thirty years were found running in perfect order; and these drains were made simply *by the plow*, without the addition of tiles.

The old mole plow has been entirely superseded by an improvement invented by a Mr. Fowler. To his plow is attached a wire rope, on which a line of pipes is strung, and as the plow proceeds, this line is drawn into the ground. The plow is worked by a capstan which forces

it into the ground to the requisite depth, and the pipes being drawn after it, are correctly deposited in the drain.

In stiff clay land, this plow will construct drains which will discharge water without the aid of tiles.

The crow-bar and spade, pick-axe and shovel, are draining tools, but they are sufficiently known without being described in a drawing, but the public are not so familiar with the following implements:



No. 1. No. 2. No. 3. No. 4. No. 5.

Of these figures, No. 1, is a pointed draining spade. No. 2, is a shovel or screen for putting stones into drains, and at the same time, separating them from sand and clay. No. 3, and 4, are draining scoops for cleaning the bottoms of the drains; and 5, is a tile-hook for depositing pipes or tiles in the drains.

MODERN IMPROVEMENTS IN DRAINING.

Within the last ten years a vast quantity of land has been drained, and many improvements in draining have been devised.

In the old system, drains were made with perpendicular sides; according to the improved plan *they are sloped like a wedge.*

In former times drains were placed at irregular distances, according to the improved plan they are placed at regular intervals, invariably *up and down the declivity;* and they are made of uniform depth as much as possible, and are wedge shaped.

Formerly, drains were made wide at bottom, and they were generally filled with unbroken stones, they are now made *narrow at bottom,* and filled with stones broken small for the purpose. According to old systems, drains were filled up loosely in order that the water might enter from the surface through the mouth of the drain. Modern drainers

reject that plan altogether and fill up the drains so firmly and compactly, that water cannot enter *at the mouth*, but at the bottom and sides of the drain.

Open main drains were formerly much used; they have been entirely superseded by covered mains, which are certainly much better. Among the most important modern improvements in the art of draining, may be classed the Deanston system, the sub-soil plow, Fowler's mole-plow, improved tile machines, &c.

In former times, farmers were satisfied if they removed excess of moisture from land by surface draining. Modern Science has pointed out the injury done to land by surface drains, and warned the farmer against adopting such a system. *Rain water should be permitted to sink into the earth, and to deposit its fertilizing ingredients in the soil.* To it the soil is indebted for its supply of ammonia, or the flesh producing ingredients. To it the soil is indebted for carbonic acid, which may be said to be the foundation of the bones of animals, and also for the fat producing alkalies, so, as a modern writer has remarked, to rain water are we indebted for the flesh, bone and muscle of animals. It is essentially necessary that rain water should percolate through the soil. It should not be carried off rapidly by surface drains. We may be sure that along with the water a great part of the soil is carried away and deposited in the bottoms of creeks and rivers, where it is forever lost to the farmer.

When muddy water sinks into the earth and percolates through the soil it becomes perfectly clear, every particle of sediment having been deposited in the strata through which it has passed.

INFLUENCE OF DRAINING ON HEALTH AND VEGETATION.

The necessity of land drainage was forcibly pointed out in Michigan, in the spring and summer of 1855. The prevalence of ague and fever, and other bilious diseases, the death of a great many of the rural population, and the sickness and sufferings of others tell plainly that stagnant water has done its work. These sad results ought to have the effect of impressing on the minds of the survivors the necessity of removing the excess of moisture from the soil.

An unhealthy season might have been expected when the immense quantities of rain which fell during the summer, was not provided with

suitable avenues for escaping from the land. This large body of water was removed by the heat of the sun, and during its evaporation, poisonous gases were evolved, which had a baneful effect on the human frame. Health is the greatest of all blessings, and everything that tends to preserve or promote it, is a benefit to the community; for this reason thorough draining ought to be encouraged by every means, and practiced in every district.

And it is not alone on the health of mankind, that draining exercises a beneficial influence. The domestic animals are much improved by the same cause. Horses and cattle thrive better on dry than on wet land, and every description of vegetable and forage plant thrives better in drained than in undrained soil. Sheep never thrive well in low, wet pastures, and they should not be kept in such localities. Nature has placed the sheep in warm climates, and generally in the dryest and most elevated regions. How then can we expect to be successful in raising sheep in undrained land, and in pastures overflowing with water. Let us imitate nature, and furnish them with dry pastures, and localities suited to their wants.

Nearly every kind of cultivated plant requires a dry soil. Stagnant water is extremely injurious to vegetation. Grain crops of every kind are subject to many diseases in *wet land*, from which they are comparatively free in *dry soils*. Mildew and rust, smut and blight of every kind delight in wet soils, and are doubly destructive in such places. Potatoes in undrained land are subject to the rot, as the rain water, which sometimes contains deleterious acids, remains too long in contact with the tuber, and the rot is the consequence.

Drainage enables plants to resist the heat of summer, for the land being relieved from excess of moisture, becomes dry and friable and does not crack into fissures, nor bake into impenetrable clods, as soils do which are for one-half of the year covered with stagnant water, and for the other half exposed to the rays of the sun. When land had been well drained and subsoiled, the roots of plants can penetrate to a considerable depth, and draw up those mineral ingredients which sometimes lie far beneath the surface.

Frost takes a firm hold on wet land, and sometimes destroys the crops in cold marshy soils, whilst well drained and warm soils are free from its withering influence.

The authorities of cities and towns generally take proper precautions to ensure efficient drainage, and heavy taxes are laid on the inhabitants for the purpose of procuring funds for constructing sewers and drains. They are perfectly right in watching over the health of the citizens, and removing that fertile source of disease, stagnant water. Ought not the authorities of rural districts take a lesson from their city brethren, and provide means for opening up water courses of every kind, and removing those noxious pools of stagnant water which are to be found in the ditches of every public road.

Machines for making pipes and tiles are generally constructed on the principle of forcing the clay, in a properly tempered state, through a die or dies, fixed in an iron box, so that it may come out in a continuous stream of pipe or tile, which is then cut into proper lengths. Some machines are provided with a means of cutting these lengths, in others the operation is performed by hand. For some of them the clay must be properly mixed, or amalgamated in a pug mill; in others the clay needs not to be so well prepared, as it is not expressed through dies, but drawn through a series of mould collars, until by the gradual coalition of their forms, it is moulded into an arched tile, or shaped into a pipe, according to the shape of the rollers used in the operation.

This kind of machine is at present much used in Scotland, and many eminent agriculturists have expressed their approbation of it.

Tile machines should be light, in order that they may be easily moved along the sheds, in order that the tiles may be conveniently taken from them, and placed on the shelves. The prepared clay should be carried to the machine, and when the tiles are formed, they should be taken from the machine and placed on the shelves with one handling. Newly made or soft tiles, require caution and expertness in the management, as they are very easily put out of shape.

Mr. Josiah Parks, consulting engineer to the Royal Agricultural Society of England, thus describes a cheap and simple tile machine, the cost of which is only about thirty dollars. It consists of a mere frame of wood, having a cross bench or platform, upon which is placed an iron cylinder, about 17 inches long by 6¾ inches in diameter, fitted with a mould or die at its bottom. Its capacity is about 608 cubic inches, which bulk of clay, is sufficient for the production of 24 of the smallest kind of pipe. This cylinder when filled with well washed or pugged clay,

is placed on the platform, over a hole, and has an iron ring on the top, fitting the inside, upon which rests a wooden plug or piston attached to a cross-bar, which slides up and down in a groove formed in each upright of the frame. By means of a wooden axle, connected by two short cords with the piston cross-bar and a handspike, the man forces down the piston and expresses the clay through the die. The pipe is received by a boy, on a stick loosely fitting its bore, which also guages the length of the pipe. It is then cut off by a wire, and placed on a shelf. By this machine, one man and two boys make about two thousand pipes per day. It is requisite that the clay should be well washed and sieved before pugging, if not, the operation of drawing will be greatly impeded from the space around the die becoming incommoded with small stones, etc. The clay is brought from the pugmill so dry that when squeezed through the machine, not a drop of water exudes from it, hence the tiles undergo little or no change of figure while drying, which takes place very rapidly; they are placed in the kiln when containing only about 12 per cent. of moisture, in consequence of which there is but a very trifling loss in the burning.

Among English machines, that of John Ainslie, Alpenton Works, Middlesex, occupies a prominent place. It is of small bulk, and consists of a pair of rollers, to which motion is communicated by a series of pinions and wheels, which give the machine a great mechanical advantage and ease in turning. The clay is inserted between these rollers in the shape of large cakes; the rollers crush small stones and other hard substances, and express the clay through the dies or moulds; an apparatus is attached which cuts the tiles into proper lengths; this receives its motion from the movement of the tiles, as they are pressed along an endless web passing over a series of small rollers. The cutting apparatus is placed at such an angle, that in passing through the tiles, it partakes of their progressive motion, and cuts them at right angles to their base, so that either end of them will fit when placed in the drain. The dies are of various shapes and sizes, to answer whatever description of pipe or tile may be required.

With this machine one man and two boys can manufacture from 5000 to 7000 pipes or tiles in a day. Worked by one horse, or by steam or water power, from 14 to 20,000 pipes or tiles can be manufactured daily. The cost of this machine is about $175. The descrip-

tion of these machines, which I have given, may be of service in facilitating the manufacture of those important articles, draining pipes and tiles.

The proper construction of kilns for burning the tile, is a matter of very great importance, and any information on the subject must be useful.

The following is a specification of the buildings for a tilery, capable of making in a good season, 1,300,000 one inch pipes, or 950,000 $1\frac{3}{4}$ inch pipes.

Sheds 170 feet in length, with four double and three single rows of shelves.

Two kilns, each 10 feet by 10, the walls made of clay, and the floors and flues of brick.

Wrought iron furnace bars.

Breast wall in front of kiln, (brick.)

Two moveable wooden roofs for kilns.

A tile machine; two tables for rolling tiles and rollers.

Dies and screens, and felting for screens, barrows and trays.

This is a specification for the works of a first rate tilery. Cheaper buildings may answer the same purpose nearly as well. Proprietors of brick yards can construct tileries without much additional expense.

Two kilns, each 10 feet by 10, will hold:

64,000 1 inch pipes.
40,000 $1\frac{3}{4}$ inch pipes.
23,800 2 inch pipes.

With the 2 inch pipes an equal number of one inch may be burned, as they fit within them, making 47,600 of both sizes.

The tiles are placed in the kilns in an upright position. During the first eighteen hours of burning, a slow fire is kept up, for the purpose of expelling any moisture that may remain in the tiles; during this period the smoke that issues is of a light color, indicating the presence of vapor, which ceases when the tiles are thoroughly dry—and this points out to the burner the precise time for increasing his fire, which may now be kept strong until the tiles are perfectly burned—this will take about 36 hours more.

As soon as the tiles are baked, the ash pits and fire doors are built up with loose bricks, which are then plastered over with clay, and the

tiles are left to cool gradually for 48 hours, when the kilns are opened and they are removed.

Draining pipes and tiles are generally made 12 inches in length. The following table will show the number required to drain an acre of land, at various intervals:

Drains	21	feet	apart, an	acre will require	2,074 pipes.
"	25	"	"	"	1,742 "
"	30	"	"	"	1,452 "
"	35	"	"	"	1,248 "
"	40	"	"	"	1,089 "
"	50	"	"	"	871 "
"	60	"	"	"	726 "
"	66	feet or 4 rods,	"	"	660 "
"	100	feet,	"	"	425 "

ON LAYING PIPES IN DRAINS.

The method of laying pipes in narrow drains is as follows: The pipes or tiles are laid along the edge of the drain, when the operator, standing alongside the drain, takes up each pipe on an iron spike fixed at right angles to the end of a wooden handle about seven feet in length, (*see figure* 5.) There is a stop or burr on this spike which prevents the pipe from running home to the handle. When collars are used this prevents them from being crushed down too far on the pipe. When the pipes or tiles are placed in the bottom of the drain they receive a few taps from the implement, in order to make them form correct joints and a perfect line. In some cases they are strung on a small pole, and when they are laid down in the drain, the pole is removed. In this case the operator must stand in the drain.

A great difference of opinion exists as to the best and most useful size of pipes and tiles. In another part of this essay, I have alluded to Mr. Mechi's opinions on this subject. A quotation from his writings will be interesting. He says "I seldom use any larger than one-inch pipes except for large springs. *I am practically convinced that they are larger than are required. We make sad mistakes as to water;* a rope of water one inch thick, when spread eight inches wide, forms a broad looking stream, one eighth of an inch deep. It is perfectly ludicrous to see immense six, nine and twelve inch pipes put in many cases to

carry an insignificant stream that would fold up in a *one, two* or *three* inch coil. We must bear in mind that a two inch pipe will carry as much water as four one inch pipes. A *three inch pipe* is equal to *nine of one inch.* I have frequently seen great ditches made, sufficient to carry forty times the quantity of water that would ever come, and yet they had run full and overflowed. Why? Because the outlet or ditch below had been impeded by vegetable matter, a heap of earth fallen in or some trivial obstruction.

Farmers are, I am sorry to say, much too negligent about their ditches, which should be cleared of vegetable matter before November, and when rains do come they should carefully examine every ditch or drain, to see if any bushes, or other obstructions stop the current. I have a great aversion to open ditches. A pipe 12 inches in diameter will carry the water of 144 inch drains, even if they run full; but as in most cases, they are seldom more than one third full, it follows, that *a twelve inch pipe will carry the water of from* 3 *to* 400 *inch drains.*"

In another place Mr. Mechi states that "on examining my five feet drains on the 24th of December, I found the one inch pipes ran about one fourth full and discharged each, one gallon per minute or a hogshead per hour. These five feet drains continued to run three days after the 32 inch drains had ceased running. On the fifth of January some of the one inch pipes discharged four gallons per minute, or one ton per hour. It was after a melting snow."

Mr. Mechi is a strenuous advocate for deep drainage; on this subject he says: "The deep drains always ran *first* and *last*; consequently they render the land much drier than the shallow drains, by carrying away more water. I am sure we know very little about the depth to which plants will send down their roots. I know of extraordinary instances, in deep friable soils, of the roots of swedes and white turnips running down several feet. In one case where a pit was cut through when cropped with parsnips, a root was traced to the depth of 13½ feet. Now we must bear in mind, that roots will not go down *one foot into undrained, unstirred land saturated with stagnant water.*

CONCLUDING REMARKS.

Having to the best of my ability, endeavored to impress upon the reader the necessity of thorough draining, and having described the

most improved modes of performing the operation, I sincerely hope that some good result may arise from my labors.

In my opinion the attention of the Legislature should be directed to this important matter, and the main outlets cleared at the expense of the State. The climate of Michigan would be much improved by drainage. It has been often remarked, that in this State the month of April is sometimes warmer than May, and this arises from the vast quantity of heat which is consumed in the evaporation of the water which accumulates in the soil, after the melting snow, and the heavy rains of spring. If the land were properly drained, the salubrity of the climate and the fertility of the soil would be very much increased.

Drains can be constructed much cheaper than some persons suppose, as the common plow can be used to take off the surface sod; after this the subsoil plow can be used to soften the clay to a considerable depth, and then the loose soil can be thrown out by the shovel.

Pipes can be manufactured much cheaper than the horse-shoe tile, and those who doubt their efficiency should give them a *trial* before they pass sentence upon them.

A great deal of care should be taken, in order to lay the pipes or tiles properly in the drains. In swamps or running sands, the bottoms of the drains should be made three or four inches wider than the tiles; by this means, a portion of stiff clay can be put over and around the tiles, this being well packed will effectually prevent the entrance of sand or mud.

Some tough clay should always be laid over the joints of the pipes or tiles, in order to keep out sand and sediment of every kind.

The tiles should be well bedded in the bottoms of the drains, if they are not, the pressure of the filling stuff will break them.

The manufacture of pipe-tile should be encouraged, as they are by far the cheapest and best material for drains.

The proverbial ingenuity of Americans, when directed to the improvement of tile-machines, will no doubt invent many contrivances for simplifying these useful implements, and rendering them more accessible to the public.

Every farmer should give close attention to the thorough drainage of his land. It is a very great satisfaction, during rainy seasons, to be certain that the water will be carried away by drains.

The superiority of the produce of upland districts over low marshy soils, ought to be sufficient, in itself, to demonstrate the utility of drainage.

Agricultural Societies should give this important matter their fullest consideration. They should award large premiums for "the greatest amount of drainage," and every farmer should fully understand, that the salubrity of the climate, the fertility of the soil, the condition of the domestic animals, and the health of the human race, will be improved by thorough draining.

PRIZE ESSAY

ON MANURES AND THEIR APPLICATION.

BY EDWARD MASON, OF DETROIT.

The word Manure, is derived from *manus*, the hand, and was intended to mean all substances which are applied to the soil, *artificially*, that is by the hand.

In early ages of the world, when men were few, they maintained themselves by their flocks and herds, or derived a precarious support from the chase; but when they multiplied and collected together in cities, it was necessary to cultivate the ground, in order to procure a regular supply of food. After a time it was discovered that a continual succession of crops exhausted the fertility of the soil, and the earth refused to yield its fruits without the aid of manure.

The Egyptians have been an agricultural people from the earliest ages, and the manure which they depended on was the mud deposited by the overflowing of the Nile.

Various plans were adopted for the purpose of conveying the water of this river, and causing it to spread in fertilizing streams over the corn fields. Columns were erected in certain places along the river, and by them the rising or falling of the water, was accurately determined. When the river rose to a certain height, the people knew it would soon overflow the plains, and the land resounded with mirth; but when it remained at low water mark the Egyptians mourned, for they knew that a famine would ensue.

The Chinese seem to have understood the value of manure, from a very remote period of antiquity. They found that in order to be enabled to raise food for their dense population, it was necessary to cultivate every spot of ground, and they carried their tillage even up to the

tops of mountains. They also discovered, that it was necessary to keep up the fertility of the soil by restoring to it those fertilizing ingredients, which had been taken away by the crops. They are exceedingly careful in collecting manure of every description. They place great value on animal and vegetable manures, and are particularly careful of night soil. They do not allow a particle of it to go to waste. They have invented many methods of collecting and preserving it.

In new countries such as Canada, and the United States, where land can be easily procured, manuring has not been much practiced, because the soil is rich and able to produce crops for many years without any application, but it is now seen that a repetition of crops will exhaust even the fertile soils of these countries. If we look to the valley of the St. Lawrence, where the French settlers and their posterity have dwelt for more than 150 years, we find the baneful practice of cropping without manuring exhibited in full force; there the soil is completely worn out, and almost perfectly useless. Similar effects are to be seen in the Southern and Eastern States. If we look to those valuable collections of Agricultural statistics, the Patent Office Reports, we will see many a woeful picture of Southern agriculture, drawn by Southern men. Let us be warned by example. The system that has ruined the soil in Canada, and exhausted the fertility of the Southern and Eastern States, will also destroy Michigan if not checked in time.

The great secret of manuring, is the *returning to the soil a compensation* for those substances which have been absorbed by the crops.

Agricultural chemistry is of great service to the modern farmer. It analyzes soils and explains their composition; describes the composition of plants, and the food on which they exist; ascertains the value of different manures, and shows how they can be applied.

An agricultural chemist takes up a plant and weighs it carefully, and sets down its weight, he burns the plant, and finds that a certain portion of its weight has been lost; the *organic parts* have been consumed or driven away by fire; they consisted of oxygen, hydrogen, carbonic acid and sometimes nitrogen gases. Ashes alone remain; they are found to contain certain earths and salts, these are the *inorganic parts;* they cannot be discovered in a living plant, yet it is plain they must have existed in some form or other, and they must have been derived either from the atmosphere or the soil. Chemists have discovered that

the gases or organic parts are supplied by the atmosphere, and the mineral ingredients, or *inorganic parts*, are derived from the soil. If a soil be deficient in these substances, *the want* must be supplied by *manure*, otherwise the plants cannot grow in it; they will die for want of food. The *vital* importance of manuring is thus apparent.

Manures have been divided into three kinds, animal, vegetable and mineral. The first kind consists of dead animals, which by their decay return their ingredients to fertilize the soil, and also the excrements of animals, such as barn yard dung, guano, etc.

Vegetable manure is composed of decayed vegetables, such as straw, clover, grass, trees, leaves etc., and the remains of decayed vegetation of every kind.

Mineral manures consist of salt, plaster, lime, nitrate of soda, potash, soda, magnesia, etc.

Animal manure ranks first in importance, and under this head is found that valuable compound, barn-yard dung, and as this is a most important manure, we will give it the consideration it merits.

Barn-yard dung cannot be properly made, without the aid of houses and sheds suitable to the housing and feeding of the domestic animals, and the *richness and superior quality* of the manure, depend upon the nature of the food with which they are supplied; turnips, potatoes, carrots, mangel wurzel, beets and parsnips are excellent food for horses, cattle or swine, and animals fed on them produce a rich manure.

Oil cake is such a powerful fertilizer, that in England landlords generally allow tenants half the price of such food, in order to encourage them to make use of it as forage for their cattle, and thereby increase the richness of the manure, and the fertility of the land. Animals fed on hay or straw without corn or roots, yield a very poor manure. A correct system of green cropping in well arranged rotation, will ensure *rich manure*, *rich crops*, and *rich farmers*, whilst the old plan of constant cropping without manure, or "skinning," will *ruin* the land, and have a corresponding effect on *man and beast*. In order to preserve barn-yard dung properly, it is recommended by many scientific men, that it should be kept covered and perfectly safe from rain.

The Rev. Mr. Huxtable, of Saffron Waldron, Dorsetshire, England, is an eminent agriculturist; he manages his manure with the greatest skill; his method of cellaring all his feeding houses and sheds, and

flooring with open work or lattice, that the droppings of the various animals may fall through, and be mixed in the cellars with ashes and clay, is well known to every improved farmer, and the system has been introduced into this country by an enterprising farmer of Michigan. Experience will decide whether cattle, standing over, and consequently inhaling the gases of fermenting dung, can thrive so well as those which breathe a purer air.

If manure can be kept under cover it will be well to do so; yet great results can be obtained by managing it properly *in the open air.* By heaping the manure in the field where it is about to be used, many advantages will be gained; there it will be on the spot, and ready to be used the moment it is required; there it can be properly *mixed and amalgamated;* nothing improves a manure heap so much as the careful mixture of every kind of dung through all parts of it. When the manure is to be piled in the field a proper selection of a site for it should be made; a hollow place is best, but it should not be in danger of receiving injury from stagnant water. Into this hollow, a large quantity of swamp muck or rich clay should be drawn, so as to form a foundation for the manure heap, and absorb any liquid that might ooze through it. This clay, or muck, should be placed to the height of one or two feet, and over it the barn yard dung should be heaped in layers of 1½ feet in thickness, and each layer be covered with a light coat of muck. The produce of the stable, cow-houses, hog-pens, poultry-houses, &c., should be evenly mixed through the pile, so that too much of any particular kind should not remain in one part of the heap. The manure should be carted out daily or weekly, or according as it is made, and spread in even layers, taking care to spread a coating of muck over it to preserve it from rain, frost, or the rays of the sun. Severe frost may interrupt the work, but it should be resumed as soon as it is practicable to do so. Every farm yard should be provided with a liquid manure tank, and into this should run all the liquid of the stable, cow-houses, privies, &c. I do not advise American farmers to provide themselves with an expensive apparatus for liquid manuring; but I will certainly say that the heap should be frequently saturated with liquid from the tank, especially in spring after it has been properly mixed, by this means the manure will be made exceedingly rich and valuable, and its good effects may be plainly seen on the crops. Manure should be got into

the ground in good condition, that is, whilst it is *moist and oily*, and uninjured by sun or rain.

I am an advocate for well rotted dung. I have seen luxuriant crops raised by means of it, and could not be easily persuaded to prefer manure in an unfermented state. The potato flourishes best in well rotted dung. Turnips, carrots, parsnips, beets and all garden vegetables succeed best in well rotted dung. Rain will not injure manure to the extent that some persons suppose. It is true that if barn yard dung be allowed to remain lying in small neglected heaps about the farm yard, the rain will wash away its fertilizing ingredients, but if it be properly and carefully *heaped and surrounded on all sides with muck, to protect it from the weather, and absorb its juices and gases, a certain portion of rain will have a good effect on it.* M. Sprengel, the celebrated German chemist, found by analysis, that the putrified urine of the farm yard becomes considerably richer when previously mixed with rain water, as by this means the ammonia is wonderfully increased. In 100,000 parts of fresh liquid manure, he found 204 parts of ammonia. In liquid manure after putrefaction, 487 *parts, &c.*, and where previously mixed with rain water, 1622 *parts.*

This great increase of ammonia is worthy of attention. The following is M. Sprengel's analysis of the liquid manure of the urine cistern:

	Fresh.	*Pulverized.*	*Watered.*
Urea,	4,000	1,000	600
Albumen,	10	----	----
Mucus,	190	40	30
Benzoic acid,	90	250	120
Lactic acid,	516	500	500
Carbonic acid,	5,256	16	1,533
Ammonia,	205	487	162
Potash,	664	664	664
Soda,	554	554	554
Silica,	36	5	8
Alumina,	2	--	--
Oxide of Iron,	4	1	--
Oxide of Manganese,	1	--	--
Lime,	65	2	8
Magnesia,	36	22	30

Chlorine,	272	272	272
Sulphuric acid,	405	388	332
Phosphoric acid,	70	26	46
Acetic acid,	--	1	20
Sulphuretted Hydrogen,	--	1	30
Insoluble Phosphates and Carbonate,	--	180	150
Water,	92,624	95,442	93,481
	100,000	100,000	100,000

By this valuable table, it will be seen that the ammonia is wonderfully increased by rain water, also that the lactic acid and chlorine, potash and soda remain unchanged by rain or fermentation.

Gypsum has been used and strongly recommended as a means of fixing ammonia, it is now discovered that rain water has a great tendency towards the same object and exercises a similar effect on manure. In dry weather ammoniacal gases are evolved from the earth and ascend into the atmosphere, where they are condensed by cold, and being absorbed by the mists and clouds, are carried to the earth in rain and dew; sometimes the quantity of ammonia in rain water is so great that it is destructive to vegetation, as in the case of the potato blight, &c.

During the severity of an American winter, manure will freeze in the house or in the field. In a properly constructed heap, the damage it receives from rain, if any, is certainly very trifling, whilst the advantage of having it in the field, *on the very spot you require it, and properly mixed into the bargain*, is certainly a matter of the highest importance.

Many farmers have their stables and cow-houses so arranged, that the manure is not disturbed until it is carted to the field in the spring; this practice is better than allowing it to remain tossed about the farm yard, but it is not so good as careful heaping in the field, and covering with muck, as this absorbs the gases and juices and becomes as valuable as any ingredient of the heap.

From analysis made by Boussingault, at Bechelbronn, the excretions of the horse, cow, and hog were found to consist of,

	Horse.	*Cow.*	*Hog.*
Carbon,	9.19	5.39	6.97
Hydrogen,	1.20	0.64	0.86
Oxygen,	8.66	4.80	5.85

Azote,	4.13	0.36	0.61
Salts and earth,	4.13	2.36	3.70
Water,	76.13	86.44	82.00
	100.00	100.00	100.00

The litter used at the experimental farm at Bechelbronn, was wheat straw, which usually contains twenty-six per cent. of moisture. The following analysis shows what it is composed of:

Carbon,	25.8
Hydrogen,	3.9
Oxygen,	28.8
Azote,	3
Salts and earths,	5.2
Water,	26.0
	100.00

In the same establishment, moist farm-yard dung was found to consist of:

Carbon,	7.41
Hydrogen,	0.87
Oxygen,	5.34
Azote,	0.41
Salts and earths,	6.67
Water,	79.30
	100.00

These tables are exceedingly interesting, as by their aid we are enabled to understand the composition of this valuable manure, and to know the reasons why it has such a powerful effect in promoting vegetation. By examining the ashes of plants, we discover the mineral ingredients upon which they live. The following tables made by Dr. Antisell, show analysis of the ashes of plants:

	Potatoes.	*Turnips.*	*Clover.*	*Wheat.*	*W. Straw.*
Silica,	5.6	6.4	5.3	1.3	67.6
Alumina,	.5	1.2	.3	0.0	1.0
Soda,	.0	4.1	.5	0.0	0.3
Potash,	50.5	33.9	26.6	29.5	9.2
Lime,	1.8	10.9	24.6	2.9	8.5

Magnesia,	5.4	4.3	6.3	15.9	5.1
Chlorine,	2.7	2.9	2.6	0.0	0.6
Carbonic acid,	13.4	14.0	25.0	0.0	0.0
Sulph. acid,	7.1	10.9	2.5	1.0	1.0
Phosp. acid,	11.3	6.1	6.3	47.0	3.1
Water and loss,	0.1	5.5	0.0	2.4	3.7
	100.00	100.00	100.00	100.00	100.00

From these tables it is apparent that potash predominates in the composition of the potatoe; that turnips are principally composed of potash, lime, carbonic and sulphuric acids; that clover principally consists of potash, lime and carbonic acid, whilst the grain of wheat is in a great measure composed of *phosphoric acid and potash*, and the straw of *silica*. A continuation of these agricultural tables would occupy too much room. It will be sufficient to mention the principal ingredients of the ashes of some of the most useful plants. Peas are found to consist in a great part, of potash and phosphate of lime; the grain of rye, of phosphate of lime and potash; the straw of rye, of potash and silica. M. Sprengel found potash, soda and silica, to be the principal ingredients in the grain of maize, and the straw to consist chiefly of silica and lime. Liebig classes maize among those plants which require but little potash in their formation; yet it is clear that this plant varies much according to the soil in which it is grown, and the analysis of several chemists go to show that it is not deficient in that mineral.

Every farmer should be thoroughly acquainted with the composition of the plants he cultivates, the soil he grows them in, and the manure he applies in order to render that soil fertile. When the structure and composition of plants are understood, it will be plainly seen that they deprive the soil of a certain portion of its ingredients, and that if they are too frequently grown, they will *entirely* exhaust the soil of these substances, and render it barren, and consequently incapable of producing a crop of the same kind as that which has absorbed so much of its fertility. Experience has shown that after a soil is completely exhausted of these substances, which are necessary for the growth of one kind of kind of crop, a change may be made, and the soil may be found capable of producing a crop of a different description; and this fact is of

the greatest importance to the agriculturist, for upon it is founded the theory of *rotation of crops.*

The whole art of rotation consists in suiting the crops to the nature of the soils, and varying them with each other in such a manner, that, whilst the greatest amount of produce is raised off the land, still the soil shall not be impoverished; thus, when a grain crop is raised, a quantity of phosphates and nitrogen has been extracted from the soil. Returning the straw to the ground in the shape of manure, will restore the salts which have been abstracted, whilst the nitrogen may be returned by growing green crops. A grain or white crop, should always be succeeded by a green crop; by this means weeds will be eradicated, and the fertility of the soil preserved.

It is a remarkable fact that each grain crop has its particular green crop, after which it thrives best; thus, after turnips, barley succeeds best; after grass, oats; after potatoes, or beans, or clover, wheat.

The following is a good five course rotation:

1. Green crop or manured fallow.
2. Wheat.
3. Artificial meadow, (clover and grasses.)
4. Pasture.
5. Corn or oats.

By this plan it will be seen that two crops of grain are never raised off the same field in succession; that the clover is succeeded by pasture, which is broken up for corn or oats.

The following is a four course rotation, which in some cases will answer very well:

1. Corn, potatoes or fallow, manured.
2. Oats.
3. Clover.
4. Wheat.

The only objection to this course, is that one grain crop, the oats, succeeds another grain crop, the corn; but in the culture of maize, the land being kept clear and well worked between the drills, is generally in good heart for the next crop.

Fallowing is another way of restoring the fertility of a soil, and has been used for that purpose since the earliest ages. Fallowing is not much practiced in the improved system of husbandry, as it is found

much more profitable to employ the land in growing green crops, than to allow it to remain idle in fallow. Land which has been impoverished by frequent cropping, is much improved by being well fallowed, as the soil being frequently stirred up and exposed to the atmosphere, becomes again rich in soluble phosphates and silicates; these substances being dissolved by the action of the elements.

Liebig says that "fallow in its most extended sense, means that period of culture, during which soil is exposed to the action of the weather, for the purpose of enriching it in certain soluble ingredients.

Fallowing should not be adopted as a system, but when land is fallowed it ought to be plowed deep and made perfectly free from weeds, and it should receive manure suited to the growth of wheat, as this crop almost universally succeeds fallow.

Manuring is the best method of restoring the fertility of a soil, and therefore should receive the greatest attention. By examining the composition of plants and the ingredients of manures, the farmer will be enabled to apply those kinds of manure which are best suited to forward the growth of each particular crop.

THE FLAX PLANT.

Flax is extensively cultivated in several parts of America, and no doubt its cultnre will soon be considerably increased. It is a most valuable plant both in an agricultural and a commercial point of view, and happy it would be for this country if flax could entirely supersede the cotton plant. I quote the following analysis of the flax plant and also of its ashes from Sir Robert Kane's celebrated work—The Industrial Resources of Ireland.

Analysis of the Flax Plant.

Carbon,	38.72
Hydrogen,	7.33
Nitrogen,	.56
Oxygen,	48.39
Ash,	5.00
	100.00

The following is an analysis of the ashes of the flax plant:

Potash,	9.78
Soda,	9.82
Lime,	12.33
Magnesia,	7.79
Oxide of Iron and Alumina,	6.08
Silica,	21.35
Sulphuric Acid,	2.65
Chlorine,	2.41
Carbonic Acid,	16.95
Phosphoric Acid,	10.84
	100.00

The Flax Improvement Society of Ireland commissioned Sir Robert Kane to make analysis of some of these soils, which had produced the finest crops of flax, and he found that the description of soil best suited to its growth, was a light, clay loam, of which the following is an analysis. (Three samples of soils.)

	No. 1.	2.	3.
Silica and Silicious sand,	73.72	69.41	64.93
Oxide of Iron,	5.51	5.29	5.64
Alumina,	6.65	5.70	8.87
Phosphate of Iron,	0.06	.25	.31
Corbanate of Lime,	1.09	.53	1.67
Magnesia and Alkalies,	.32	.25	.45
Organic Matters,	4.86	6.67	9.41
Water,	7.57	11.48	8.73
	100.	100.	100.

Flax is cultivated for the purpose of obtaining its fibre, for the manufacture of *linen thread, ropes, &c.*, and also for the excellent *oil* which is expressed from its seed, and for the nutritious *food for cattle* which is made from the remains of the seed, after the oil is expressed, which substance is called *linseed cake*, and is very extensively used in the fattening of cattle by European farmers. In an industrial point of view the flax plant is of the greatest importance to the community.

Professor Johnston recommends the following special manures, as a means of returning to the soil a compensation for those substances which have been carried away by the seed and stem of flax:

	By the seed, (per acre)	*By the stem.*
Bone Dust,	144 lbs.	50 lbs.
Sulphuric Acid,	72 "	25 "
Carbonate of Potash, (dry)	36 "	17 "
Carbonate of Soda,	6 "	20 "
Carbonate of Magnesia,	22 "	21 "
	280 lbs.	133 lbs.

In the cultivation of flax, the land should be rendered perfectly free from weeds, and made very fine, in fact completely pulverized. Guano has been found a useful manure for this crop, and well rotted farm yard dung in small quantities has been found to produce excellent crops of this most useful plant.

VARIOUS KINDS OF MANURE.

Having in a former part of this essay, examined the nature of barn yard dung, and explained its composition, and also produced important analysis, to show the materials of which plants and soils are composed, I will proceed to notice some of the most valuable manures, omitting those which are of least importance.

Guano.

Guano being the dung of fowl comes under the head of "animal manures." It is an extremely valuable substance, and has enabled the farmer to increase the extent and luxuriance of his green crops. It is a great deal more portable than barn-yard dung, and therefore can be used in localities into which it would be impossible to bring the latter mentioned substance.

A small quantity of guano will sometimes have an extraordinary effect on the soil, or rather on the crop to which it is applied. I have seen an excellent crop of turnips raised by the application of 200 lbs. of guano per acre; 400 lbs. per acre is the amount generally used. It is a good manure for turnips, potatoes, carrots, parsnips, beets etc., and is an excellent top dressing for grain crops of every kind, and also for clover and every kind of grass.

I have frequently used guano, and found it to be a good manure, but its effects generally disappear with the crop to which it is applied.

Some farmers have found its good effects more permanent, and on

some soils, and in certain localities such may be the case. Large quantities of guano have been o tained from islands on the coast of Peru, and also from Africa. Peruvian guano is generally superior to African. Guano should be well pulverized before it is applied, and also mixed with twice or thrice its bulk of cold ashes or fine rich clay; by this means it can be spread evenly on the field, and its value will be increased. Guano should be spread broadcast over the field, just before the drills are formed—it will thus become mixed with the soil without being buried too deep, and too far away from the roots of plants. I have sometimes seen it spread along the drills before the turnip machine, the coulters or shares of which cover it sufficiently deep; but it is well to bear in mind, that if placed too close to seeds of any kind, it will destroy them.

From a valuable table of the analysis of several kinds of manure, compiled by Mr. James Haywood, it appears that one ton of guano contains, of the following substances:

Chlorine.	*Sulph. Acid.*	*Phos. Acid.*	*Soda.*	*Potash.*	*Nitrogen.*
.62	93.8	283.9	36.15	66.88	182.8

Whilst one ton of mixed barn yard dung contains of the same substances, only the following quantities:

Chlorine.	*Sulph. Acid.*	*Phos. Acid.*	*Soda.*	*Potash.*	*Nitrogen.*
1.9	1.4	5.1	1.10	2.4	11.0

According to this table, it will take 240 tons of barnyard dung to supply the same amount of ingredients, as one ton of guano; one fourth of the weight of barnyard manure consists of water, which of course is not of much value to the crop. It contains other ingredients besides those enumerated in the foregoing table, namely, organic matter and lime, but its most important contents, and those in which its true value consists, are the substances specified in the table.

Guano has a very good effect when mixed with barn-yard-dung and also with salt or gypsum. Lime destroys its good qualities by dispeling the ammonia which is one of its most important ingredients:

Analysis of Peruvian Guano. (Dr. Antisell.)

Azotized animal matter containing urate of Ammonia,	50.0
Water,	11.0

Phosphate of Lime,	25.0
Phosphate of Ammonia,	13.0
Silicious Sand,	1.0
	100

Analysis of African Guano. (Dr. Antisell.)

Oxalate and carbonate of Ammonia,	65.0
Uric acid and organic matter,	12.4
Phosphates of Lime and Magnesia,	20.0
Sand,	1.5
Phosphate and muriate of Soda,	4.2
Water,	6.9
	100.0

The following are analyses, by Professor Way, of two specimens Peruvian guano :

Water,	12.37	13.67
Organic matter and salts of Ammonia,	33.67	52.97
Sand and Silica,	1.72	1.42
Phosphoric Acid,	20.21	14.50
Sulphuric Acid,	4.00	2.51
Lime,	16.49	10.48
Magnesia,	0.80	0.34
Oxide of Iron,	0.22	0.73
Potash,	3.60	1.42
Soda,	4.15	none.
Chloride of Potassium,	none	2.02
Chloride of Sodium,	2.57	----
	100.00	100.00

Guano is frequently adulterated with ashes, clay, or sand of a brown color. Farmers should be extremely cautious in purchasing this manure, except from a first rate house, or direct from the ship, otherwise they may not be able to procure a genuine article. Fraud in Guano may be detected by the following process: 1st, weigh a sample and lay it on a piece of paper, on a warm stove, (the heat should not be sufficient to scorch the paper,) until it appears quite dry, then weigh it,

the loss sustained is *water.* 2d, Put the sample then in a wine glass and pour hot water over it—stir it well for two minutes, then allow it to settle—then pour off the liquid carefully—add hot water again, and proceed as before—then pour a small qantity of muriatic or nitric acid into the glass; the acid will dissolve all the undissolved salts, and nothing will remain of the guano but *pure sand*—wash this dry and weigh it, the quantity of sand in the sample will be thus ascertained.

3d. Take a fresh sample of guano, weigh it and place it in an evaporating basin, and heat it over a spirit lamp so long as the fumes are given off, and the guano appears black; weigh it again, deduct the water from the volatized portion, and the remainder of the loss consists of *ammoniacal salts;* the smaller the quantity remaining in the basin the better is the guano. The admixture of *saw dust* will be detected by the second test, as it will *float on the water in the glass.* By these simple tests the farmer will be enabled to *prove* the quality of guano and detect imposition.

GYPSUM OR PLASTER OF PARIS.

This valuable manure is found in large quantities in Michigan. It is much used through various parts of America, as a top dressing for clover, wheat, and also for old meadows. Gypsum is sometimes called plaster of paris, from its abounding in the quarries of Montmartre, near the French Metropolis. It is found in New Brunswick and Nova Scotia, and large quarries of it have been opened at Grand Rapids in this State. In its crystalized form, it is sometimes called "Selenite." 100 pounds of gypsum consists of

Sulphuric Acid,	46 lbs.
Lime,	33 lbs.
Water,	21 lbs.
	100

It dissolves with difficulty in water, and requires 500 times its own weight to effect its solution; by burning it is reduced in weight, the water being driven off, and it is then easily reduced to powder, which is perfectly white, and much used in stucco, cement, etc.

On soils which contain all the other ingredients necessary to supply the food of plants, *except sulphate of lime,* gypsum has a powerful effect, particularly if applied to clover, or any of the leguminous crops.

If a sufficient quantity of sulphate of lime exist in the soil, the application of gypsum becomes perfectly useless, and on this account, its value as a manure has been doubted by some persons, who did not understand the cause of its failure. Many interesting experiments have been tried, in order to prove the value of gypsum as a manure; some of them are worth recording. Mr. Smith, of Turnstall, near Settingbourn, having a field of red clover which had been manured with gypsum, and had produced a very fine crop, he repeated his trial, on two square perches—one carefully spread, about the middle of April, with powdered gypsum, at the rate of five bushels per acre—the other without any; the crops when mown, and afterwards cut for seed, produced as follows:

	per acre.	*cut for seed.*
Gypsumed part,	60 cwt.	3.21
No manure,	20 cwt.	.20

Mr. Smith says his cattle showed a remarkable predilection for the gypsumed clover.

The following experiments on different perches of clover, illustrate the value of gypsum:

No. 1. No manure,	38.6
No. 2. 4 quarts sifted coal ashes,	50.0
No. 3. 1 quart gypsum,	54.8

The above experiments also show that coal ashes are a good manure.

An experiment is recorded in the "Library of Useful Knowledge," in which five bushels of gypsum per acre, were applied to part of a large field of clover. Its effect in promoting the weight and luxuriance of the crop was remarkable. In November the entire field was sown with wheat, and the dark color and luxuriant growth of that part which had been gypsumed, became apparent in the spring. When the wheat was threshed, the produce was as follows:

	qrs.	bush.		£	s.
Gypsumed part produced per acre,	4.	6	72	17	2
No manure,	2.	4	do	9	0

Three quarters per acre was the largest amount that had been grown in the same field during a period of twenty eight years, that it had been occupied by the same tenant. The good effect of plaster on wheat,

clover, &c., is well known to Michigan farmers. Some complain that it has a tendency *to retard* the ripening of wheat, which makes it subject to rust, &c. This evil may be remedied by putting on the plaster early in spring, and also by adding a little salt; this latter substance promotes the weight and ripening of all kinds of grain.

The urate of the London manure company, is gypsum steeped in urine, and it is esteemed a very valuable manure. The best time to apply gypsum is in the spring, when the land is not too wet, nor yet too dry. The following questions were addressed by M. Boussingault, to eminent agriculturists living in different parts of France, in order to determine the value of gypsum:

Q. 1st. Does gypsum act favorably on artificial meadow?

43 answers returned—40 yes—3 no.

2d question—does it act favorably on artificial meadows, when the ground is extremely wet?

10 answers—no unanimously.

3d question—can it take the place of organic manures or of humus, in the soil; in other words,can a sterile soil with the addition of gypsum, support artificial meadow? 7 answers—all in the negative.

4th question—does gypsum in a sensible manner increase the growth of grain crops?

32 answers—30 negative.

The reader can compare the opinions of these agriculturists with his own experience in the use of gypsum.

The quantity of plaster usually applied to crops varies from one to four hundred weight.

Professor Johnston asserts in his lectures on Agricultural Chemistry, that the addition of salt greatly increases the value of gypsum as a manure, and the great German Chemist, Liebig, is of the same opinion.

Common Salt.

Salt is certainly a very valuable manure, its uses in agriculture appears to be as follows:

1st. It supplies soda and chlorine.

2d. It attracts moisture and resists frost.

3d. It is soluble and attracts porous substances.

4th. It promotes putrefaction when used sparingly.

5th. It decomposes with lime and other salts and forms valuable compounds.

6th. It kills the wireworm and several other insects injurious to agriculture.

Salt used with barn dung, has been found to produce a larger crop of turnips than double the quantity of dung without salt. Lime and salt promote the decay of weeds and vegetables, and hasten the decomposition of peat, in a greater degree than either of these manures taken singly. With gypsum it supplies soda and sulphuric acid, besides muriate of lime, and taken together, they form a *most excellent manure.* Liebig says, "Common salt enables the plant to extract its sulphur from the ground, where it has existed as sulphate of lime." When used as a brine, salt is generally destructive to vegetation. In the application of salt as a manure great care is necessary, as too much of it *will destroy seeds or plants*, whilst a certain quantity will *be exceedingly beneficial.*

The grain of the cereal and leguminous crops is much improved in size and color by the judicious application of salt. It acts well in conjunction with ammoniacal manures; the proportion should be three times as much salt as they contain salts of ammonia. The salt gives strength and solidity to the stem and grain, whilst the size and luxuriance of the plant are increased by the ammonia.

Mr. Sinclair, of Woburn, England raised ninety-five bushels of wheat to the acre by using a manure composed of salt and barn yard dung.

Salt has frequently been used with much success in Michigan as a top dressing for orchards.

Lime.

Nearly every plant and vegetable has a portion of lime in its composition, from this fact the necessity for keeping up a supply of it in the soil is apparent. I have used more than ten thousand bushels of lime as a manure, and ought to be able to form a correct opinion of its value. In some cases it has a remarkable effect in promoting the growth of crops; in others, no good result is visible. A certain portion of it is necessary in every soil, more than this, is worse than useless. Its effects are not immediate, but are lasting, especially on land laid down for permanent pasture. It promotes the growth of clover and grasses of every kind, and adds to the size and vigor of root crops.

A small quantity of lime, mixed with muck or rich clay of any kind, will have a better effect than a much larger quantity, applied without the addition of any other substance. Professor Johnston says, "Lime acts in two ways on the soil. It produces a mechanical alteration which is simple and easily understood; but it is the cause of chemical changes which are really obscure, and are as yet susceptible of only partial explanation.

1st. It supplies a kind of inorganic food, which appears to be necessary for the healthy growth of all our cultivated plants.

2d. It neutralizes acid substances which are naturally formed in the soil, and decomposes, or renders harmless, other noxious compounds which are not unfrequently within reach of the roots of plants.

3d. It changes the inert vegetable matter in the soil, so as gradually to render it useful to vegetation.

4th. It facilitates, or enables other useful compounds both organic or inorganic, to be produced in the soil, or so promotes the decomposition of existing compounds as to prepare them more speedily for entering into the circulation of plants."

Lime is found to exist in clover and wheat, turnips, oats and maize, and in almost every plant. In nature it mostly exists as a carbonate, that is, in conjunction with carbonic acid. There can be no doubt but that the soil of Michigan would be much improved by the judicious application of lime.

Bones.

Bones have been for some time considered a manure of great value. European agriculturists have erected mills at considerable expense, for the purpose of crushing and grinding bones, and thereby rendering them fit for manure. Great results have been obtained by applying bone manure to old pasture or meadow lands, the grass or hay of which had been taken away for many years, to form the flesh and bones of animals, without an equivalent being returned to the soil, which in such cases becomes exhausted and unable to yield pasture or meadow; but when phosphate and carbonate of lime, and gelatine are applied in the shape of bone dust, a remarkable change takes place, the grass shoots up with renewed vigor, and excellent crops are obtained.

American farmers scarcely ever make use of bones as a manure, yet they might easily be procured, for in this country large quantities of

them are annually wasted. If bones, instead of being permitted to go to loss, were collected and dissolved in sulphuric acid, (oil of vitriol,) and applied as manure for turnips, or as a top dressing for wheat, clover, or meadows, a great improvement in these crops would soon be visible. Bones abound in phosphoric acid, a substance which forms a great part of the grain of wheat, and exists in almost every useful plant. Professor Fox advises farmers to *boil the bones* in sulphuric acid; I notice this merely to say that the greatest men are sometimes astray in their opinions. The farmer should bear in mind that this plan is not *practicable*, as sulphuric acid will destroy any vessel it is placed in. The best plan for dissolving bones, is to break them into small pieces with a heavy hammer, or crush them in a bone mill, and then having formed a little tank of well tempered tile or brick clay, to place the bones in it, and *steep* them in sulphuric acid. This preparation should be placed in the corner of some shed or outhouse, and covered up, so that no living thing can be injured by it. Wood ashes dissolve bones, if they are placed in barrels and covered up carefully, the bones in the centre. Bones have been very much used as a manure for turnips and other green crops, with the most favorble results.

According to Antisell, the bones of the cow consist of:

Phosphate of lime,	55½
Phosphate of magnesia,	3
Soda and common salt,	3½
Carbonate of lime,	3¾
Fluoride of calcium,	1
Gelatine,	33¼
	100

Ashes as a Manure.

Ashes of every description are a good manure. In Belgium the farmers invariably apply a top dressing of prepared ashes as a manure for their grain crops. For this purpose they make use of a mixture of the ashes of clay, wood and coal, saturated with liquid manure, and then dried by the addition of more ashes.

In America, where wood ashes are so easily procured, the farmer can readily provide an excellent manure for his wheat, clover, &c. Wood ashes contain the salts of potash, and the phosphate of lime, which

form the most fertilizing ingredients of bones. Wood ashes contain all the salts and inorganic substances which trees extract from the soil. They have been used with good effect on nearly every kind of crop.

100 parts of wood ashes afford 13.57 parts soluble, and 86.43 parts insoluble. The latter is left behind at the ash works, while the soluble parts have been boiled down and exported as potash. Leached ashes are nearly as valuable for manure as unleached. This is a fact worth remembering.

In the great forests of Nature, the mineral ingredients which have been taken up by the roots, in order to form the trunks and branches and leaves of trees, are returned to the soil according as the trees decay. We ought to imitate nature in a small way, and *restore to the soil* those substances which have been *absorbed by our crops*, by applying suitable manures. Wood ashes contain a large proportion of lime, potash and magnesia; coal ashes contain a considerable amount of phosphoric acid and Silica. Peat or turf ashes are composed in a great part of silica, and the sulphate and carbonate of lime, but contain little, if any, phosphoric acid.

A mixture of these ashes makes a valuable manure, and may be applied with success to any grain or grass crop.

Nitrate of Soda

Is composed of nitric acid and soda in combination. It is a natural product imported from Peru; 1½ hundred weight per acre, mixed with ashes or mould, has been found an excellent top dressing for wheat, oats, grasses, etc.

Nitrate of Potash, (Saltpetre)

Is nitric acid and potash in combination. It is a mineral manure imported from the East Indies; one hundred weight per acre, mixed with ashes or rich mould, and spread broadcast, has been used with considerable success, as a top-dressing for wheat.

Clover as a Manure.

Red clover is extensively used both in Europe and America as a preparation or manure for wheat; but a too frequent repetition of clover in the same field will render it deficient as a crop, and useless as a manure. It should not be grown in the same soil more than once in five or six years.

The clover plant is composed principally of potash lime and carbonic acid, substances which are of vital importance to the wheat plant, and this is the reason why a clover crop when plowed in properly generally produces a good crop of wheat. Boussingault found that one acre of clover roots weighed 1428 pounds when perfectly dry, and were composed of the following substances, per 100 parts:

Carbon,	43.4
Hydrogen,	5.3
Oxygen,	36.9
Nitrogen,	1.8
Salts and earth,	12.0
	100.0

Clover is exceedingly useful as food for cattle, and where house-feeding is practiced an immense quantity of rich manure is obtained by having a succession of clover, vetches, &c., to supply the cattle with food. Clover possesses very large roots in proportion to its size, these penetrate the ground and draw up considerable quantities of mineral ingredients which are set free when the clover dies, and enter into the composition of the succeeding crop.

When clover is too frequently repeated, the soil becomes exhausted of these mineral ingredients, and also is rendered too light and porous, by the spaces left by the decayed roots.

CONCLUDING REMARKS.

Having now treated of the most valuable manures, and used every exertion to make this essay as useful and practicable as possible, I leave it to the good sense and discrimination of the reader, to form a correct opinion of its merits.

I have not recommended the adoption of expensive machinery for liquid manuring, because I think a tank and pump will be sufficient for collecting and discharging the liquid of the farm yard.

I did not recommend the Sutton Waldron system of flooring sheds and cowhouses with lattice, in order to permit the droppings of the cattle to fall through, because I don't think it suited to a cold climate such as this. Another reason which induces me to think lightly of that plan is, that a committee who visited Mr. Huxtable's farm at Sutton Wal-

dron, found his cattle well supplied with plenty of litter, and discovered that his *theory* and *practice* did not exactly correspond.

Barn yard manure is the richest and best substance that can be applied to land, therefore every farmer should pay the closest attention to the collection and management of this important fertiliser.

Many farmers put out their manure in the fall and plow it in. If it has been properly prepared, this plan may do very well, as it will lighten the spring work; but it is sometimes put out in an unprepared state, and generally placed too deep in the soil.

Experiments with different manures should be made annually, and when their usefulness is properly tested, the results should be accurately recorded in some agricultural periodical.

Farmers should recollect that all stimulating manures, such as guano, lime, gypsum, &c, have a tendency to exhaust the soil, as they merely cause the crop to exhaust a great quantity of fertilizing ingredients from the earth.

Without a regular system of husbandry, and a correct rotation of crops, the value of manure cannot be properly developed, as it will certainly be mismanaged and misapplied; but with an improved system of farming to support it, manure will be of inestimable value.

Many substances are suffered to go to waste around the farmer's house and farm-yard, which would make excellent manure; wood ashes, bones, salt, soot, &c., and various kinds of liquid are suffered to go to loss, whilst the crops are suffering a want of such fertilisers.

Having now used every method in my power to impress upon the farmer, the necessity of the careful collection and proper application of manure, I trust my labors will be found useful to agriculture.

PRIZE ESSAY

ON THE CULTIVATION AND MANAGEMENT OF WHEAT.

BY EDWARD MASON, OF DETROIT.

Many valuable essays have been written on these subjects, and still there is room for more—as every passing year adds some important fact to the records of experience.

Wheat has been cultivated for food, from the earliest ages. In the scriptures we have an account of the Israelites, in times of scarcity, obtaining a supply of this grain from Egypt.

The Egyptians have been celebrated as growers of wheat from time immemorial, and their principal manure has been the mud left by the overflowing of the Nile. I have seen large quantities of Egyptian wheat; it is a large grain, but the ancient mode of threshing, or "treading out the corn," with oxen or horses, being still practiced in Egypt, it is considerably damaged by being mixed with filth of every kind.

The wheat plant does not exist in a wild state, and several circumstances tend to prove that it is a *species of grass*, brought to its present improved state by *continued cultivation.*

A French botanist has lately discovered that wheat can be produced by the careful cultivation of a grass called Egilops, which grows on the coasts of the Mediterranean; some of the most eminent naturalists of France have tested the discovery, and found it to be correct; and Dr. Lindley, the celebrated English botanist, has endorsed the opinion.

This discovery may seem to favor the doctrine of transmutation, and the advocates of that theory may endeavor to prove by means of this experiment, that "wheat turns into chess;" but they should recollect that there are many kinds of grass which bear a closer resemblance to wheat than chess does.

If they cultivate chess for ever so many years, they will find that wheat cannot be produced from it. It is much better to turn our attention to the subject of procuring *good seed*, and eradicating weeds of every kind. I have had more than twenty-five years experience in the cultivation of wheat, and I have never seen an instance of transmutation. I am fully convinced that a thorough attention to cleaning of seed, and the destruction of weeds, will go very far towards upsetting the chess theory.

The year 1855 will long be remembered by American farmers, as a proof of the uncertainty of earthly things—an abundant crop of wheat had arrived at maturity; the fields were "white already unto harvest," and some of them had fallen before the reaper; when a change came; torrents of rain poured down for many days, and the hopes of the farmer were "laid" with his crop.

Good sometimes arises out of evil; and although in this case, much loss has been sustained by the farmer, and much injury to the community has resulted from damaged flour, &c., people will be led to study the best method of harvesting wheat in a wet season—the management of sprouted grain, and the most approved plans of making bread from damaged flour.

A considerable portion of wheat had been cut before the rain, and much of this sprouted, because it was left in the fields unsecured.

In Europe, where the climate is much more variable than in America, the farmer takes care to secure his crops from rain, as fast as he cuts them—wheat is bound immediately and made into "shocks" or "stucks," which are carefully capped. It is sometimes made into small field stacks, of about five bushels each, and this is an excellent way of securing it, as the butts of the sheaves are all exposed to the influence of the sun and wind.

If wheat has been cut down and overtaken by rain before it is secured and there is no prospect of fine weather, it should be bound into small sheaves and set up in uncapped shocks, and these should be frequently "*re-made;*" this latter process often prevents grain from sprouting, as the frequent stirring and changing disturbs that repose which encourages vegetation.

Some parts of every field are more sheltered than others; and as wheat is liable to sprout in such places, it should be removed, and made

up in the most open and airy parts of the field. Of course these remarks apply to the management of wheat during an unfavorable season. It is always improper to commence reaping wheat, when there are indications of approaching rain.

The experience of this season will enable the farmer to perceive that there are some kinds of wheat which resist moisture better than others, and he will be warned by the injury received by tender kinds, to sow in future those which are hardy, and well calculated to resist the effects of a wet season.

Bearded wheat is liable to sprout, and is not able to withstand excess of moisture so well as smooth or bald kinds.

Farmers who have raised barley on rich land, know that it is sometimes very difficult to harvest that crop properly. It is liable to heat in the stack, or barn, and to be spoiled. The reason is, that the awn or beard *attracts the moisture* and *retains it* for a considerable time. If we wish to have wheat capable of resisting rain, we must entirely discard every bearded kind and retain those smooth, hardy varieties which have been proved capable of resisting moisture.

Experience tells us that wheat should be reaped at least three or four days before it becomes perfectly ripe, and whilst the grain is in that middle state between softness and hardness which precedes maturity. The results of various experiments tend to prove that wheat reaped in this state makes better flour, and yields more than that which is allowed to become perfectly ripe. Wheat intended for seed should be well ripened. We hear a great deal about the wonderful predictions of weather-prophets, and as a knowledge, or rather a *fore-knowledge* of the changes in the weather is a matter of so much importance to the farmer, we advise him to keep *a weather prophet in his house* and to consult it every morning, with "silent eloquence" it will warn him of approaching changes, and he will have an opportunity of securing his hay, or stacking or housing his wheat before it is overtaken *by rain*. It will also caution him against commencing to mow down meadows or reap wheat whilst rain is approaching. We need scarcely remark that the prophet alluded to is a barometer. It is a humiliating fact, that much more reliance can be placed on the indications of this useful piece of mechanism than on the predictions of modern seers. Every farmer should have a barometer.

When all appliances and means to boot have failed, and the wheat has sprouted, the farmer should use every exertion to separate the damaged from the sound grain—some parts of the crop may have suffered more than others. These should not be mixed in the threshing, or placed together in the granary; a good fanning mill will blow out, or separate nearly all the sprouted grains, especially those which have roots or buds on them, and these are the *most damaged and unsightly* These injured grains may be of some use at home, the farmer can feed them to his hogs or poultry. If he bring them to market, he will furnish the grain merchant with *an excuse for lowering the price of wheat.*

Grown grains are *certainly injurious to flour*, but not to the extent that some persons suppose, as the heavy sticky nature of the flour made from wheat partially grown is, in a great measure, caused by the damp condition of the grain. It has been frequently proved that sprouted wheat when perfectly dry, will afford a tolerably good sample of flour.

The addition of a little corn meal will have a good effect on damaged flour, as it will cause it to rise and form a plump loaf. The nutritive ingredients of maize are nearly equal to those of wheat.

Drying the flour in an oven before making it into bread, has in some cases proved useful; so also has the addition of a little alum.

Working the dough very well, and making it dry by adding, and working in more flour, and then making it into *small* loaves, is an approved system of managing the flour of sprouted wheat.

When wheat has been threshed in Autumn, and is not perfectly dry, it ought to be spread thin on granary floors or other airy places where it can receive frequent turnings, and be exposed to the influence of thorough air. Grain is sometimes injured by being packed into close bins whilst in a damp state.

The most extensive flour manufacturers of Europe build large airy mills and storehouses for their wheat, and in most cases dry it thoroughly on kilns erected for the purpose. Artificial drying is not required in this country, except in very wet seasons.

The most successful growers of wheat make it a point to change their seed frequently; and the change should, if possible, be made from a poor to a rich soil, and from a warm or early ripening district to a colder soil.

VARIETIES OF WHEAT.

The existing varieties of wheat are so numerous, that it is impossible to enumerate them. In Lawson's Agricultural Manual, eighty-three varieties are named. In the Agricultural Museum of the Royal Dublin Society, one hundred and forty-two varieties are exhibited. Colonel Le Couteur, a distinguished agriculturist of the Island of Jersey, mentions that he is in possession of 150 varieties.

It is to be regretted that a proper collection of the different grasses and sereals, has not yet been made in this country.

Several superior varieties of wheat have been originated by persons selecting remarkably fine ears of some approved kind, such, for instance, as possesses the largest grain, thinnest chaff, stiffest straw and a tendency to early ripening, and growing them apart on selected spots of ground.

Many varieties have been produced by hybridization, or the crossing of one kind with another; of course this operation must be performed when the plants are in blossom.

Various attempts have been made to simplify the classification of wheat. Col. Le Couteur divided all the varieties into two classes, the beardless and the bearded. He then separated these classes according to the color of the grain, into white, red, yellow, &c., and also into smooth chaffed, rough chaffed, &c. He found that this method was liable to objection, as bearded wheat, by a long cultivation in good land becomes smooth, and smooth wheat in poor weak soils, sometimes becomes bearded.

The color of the grain is now considered the best mode of arrangement, and the different varieties are now classed under two denominations, the white and the red.

The white kinds are certainly better suited for flour than the red, and are consequently held in higher estimation by millers and bakers, and command a better price in the market; but they require a better description of soil, and are sometimes much later in ripening than the red kinds; the latter are better suited for inferior soils, and cold climates, on account of their greater hardiness, and early ripening tendency. Circumstances will enable the farmer to choose whatever kind is best suited to his locality.

Wheats have been divided into winter and spring varieties, but as

the distinction between them consists principally in the time of sowing, and not in any material difference in the seed, this arrangement has not been deemed of much importance.

Doctor Lindley mentions four varieties of wheat, which are perfectly distinct; they are:

Triticum Vulgare, Common wheat.
Triticum Polonium, Polish wheat.
Triticum Spelta, Spelt.
Triticum Compositum, Egyptian wheat.

The latter is sometimes called "mummy wheat," from its having been raised from seed found in the cases of Egyptian mummies. It is a branched or many headed variety, and entirely differs from the wheat of modern Egypt, which resembles the European or American varieties. This mummy wheat is no doubt of the same kind as that which appeared to Pharaoh in his dream, which is thus related in the book of Genesis. "And he slept, and dreamed the second time, and behold seven ears of corn came up upon one stalk, rank and good; and behold seven thin ears, and blasted with the east wind, came up after them; and the seven thin ears devoured the seven rank and full ears."

Some of the principal varieties cultivated in the United States, are as follows:

White Flint,	Washington Blue Stem,
Mediterranean, red and white,	Improved White Flint.
Kentucky White,	White Provence.
Soules,	Early Purple Straw.
Blue Stem,	Late Purple Straw.
Virginia May,	Canada Flint.
Red-chaff White,	Wheatland Red.
Hutchinson,	Indiana White.
Poland,	Spalding's Prolific.

The White Flint, Mediterranean and Blue Stem, are more extensively cultivated than the other kinds; indeed, many names in the foregoing list, are merely varieties of these three kinds.

White flint is an early ripening wheat but in some localities it is subject to smut; this fault can be prevented by the use of a proper steep made of salt and water, and afterwards by mixing or drying the wheat with fresh slaked lime.

The Mediterranean is a coarse red wheat introduced from the coasts of that sea. It sometimes is very productive, and is said to withstand the fly better than other wheats. It is not much in request among millers, as it gives a poor return of flour. It is somewhat like Spalding's prolific in color and quality, but the latter is a smooth wheat. There is a white variety of Mediterranean. Blue stem is a productive white wheat much cultivated both in the Northern and Southern States.

WHEAT SOILS.

Wheat, above all other crops, requires a dry soil, consequently *draining* is of the utmost importance in wheat cultivation. Spring crops are generally put in after the rain has disappeared, and the soil is comparatively dry; but winter wheat must remain in the ground during the heavy rains of the fall—the frosts of winter, and the alternate thaws and freezings of early spring. After these come the spring rains, and the overflowing water produced by the melting snow. The farmer has need to use great precaution in trying to defend his crop from complete ruin. A great quantity of wheat is annually destroyed by allowing stagnant water to remain on it during the fall or spring.

Much wheat is annually lost by being "heaved" up by the frost, this seldom happens except in light soils, which have been exhausted by frequent cropping and lack that cohesiveness and strength which the wheat plant requires. Shallow plowing is also a cause of this failure. Lands which have been drained and subsoiled are not subject to this failure as the soil having been *deepened* and the stagnant water *removed*, the roots are enabled to *strike deep and to fix the plant firmly in the soil.* It is a well known fact that although the majority of the roots of the wheat plant are found near the surface, certain others endeavor to penetrate deeply into the earth in order to take a sure hold of the ground and to draw up the food of the plant.

Heavy clay lands have been denominated wheat soils; yet excellent samples have been raised on light sandy land. Previous to the introduction of the turnip into the husbandry of Great Britain, stiff clay land was alone thought suitable for the production of wheat and fallowing was the order of the day; but the turnip has caused a revolution in the British system of husbandry. Naked fallows have disappeared;

green crops supply their place, and a regular and judicious rotation is observed.

In Michigan, winter wheat cannot be put in after turnips, unless the latter are pulled up before they are ripe, but spring wheat, barley, oats or corn may succeed turnips with good effect. Many writers assert that turnips are not an exhausting crop, but I certainly think they are.

Wheat always thrives best in new soil, but it is necessary that the roots of the grasses should be perfectly decomposed in order that they may furnish food for the young wheat plants. If the roots of grass, &c., are not decomposed, they will very probably grow and rob the wheat of the ingredients it requires for food.

Soils composed principally of clay and lime are considered best suited for the growth of wheat. Boussingault gives the following classification of wheat soils:

	Clay.	*Sand.*	*Lime or*	*Chalk.*	*Humus.*
Clay and humus—rich wheat land,	74	10	4		11.5
" "	81	6	4		8.5
" "	79	10	4		6.5
Marly soil—good wheat land,	40	22	36		4.0
Argillaceous, "	58	36	2		4.0
" "	68	38	--		2.0
Marly soil—wheat land,	56	30	12		2.0

The following analysis by Dr. Antisell will be useful in showing the composition of wheat soils. It is of an impoverished soil, in the township of Freehold, New Jersey. The ingredients it requires to render it fertile are given.

		Requires.
Organic matters,	4.50	9.70
Silicates,	87.60	----
Alumina,	3.65	5.70
Lime,	0.45	5.70
Peroxide of Iron,	1.39	----
Potash,	0.01	0.20
Soda,	0.08	0.40
Chlorine,	0.06	0.20
Sulphuric Acid,	0.12	0.20

Phosphoric Acid,	0.03	0.40
Carbonic Acid,	....	4.00
Moisture,	2.00	0.00
	100.00	

MANURES SUITED FOR WHEAT.

The mud left by the overflowing of the Nile, serves as the principal manure of the Egyptians; by it they are enabled to raise excellent crops of wheat. Its composition has been determined by Laissaigne, a French chemist; it is as follows:

Silica,	42.50
Alumina,	24.25
Peroxide of Iron,	13.05
Carbonate of Lime,	3.85
Carbonate of Magnesia,	1.20
Magnesia,	1.05
Ulmic Acid,	2.80
Water,	10.70
	100.00

Manures which abound in Nitrogen are generally best suited to the growth of wheat. Professor Johnston proved this by experiments, which are recorded in his "Lectures on Agricultural Chemistry;" take for instance a wheat plant, and examine the composition of the flour it contains, as raised by being dressed with different manures. It will be found that its gluten, which contains a large per centage of nitrogen, is invariably increased by the increased proportion of nitrogen in the manure.

M. Hermstadt, from equal quantities of the same kind of wheat sown on the same description of soil, and manured with equal weights of different manures, obtained starch and gluten in the following proportions, from 100 parts of each sample of grain:

	gluten.	*starch.*
Soil simple,	9.02	66.07
Potatoe Haulm,	6.06	65.94
Cowdung	12.00	62.03
Pigeons dung,	12.02	63.02

Horse dung,	13.07	61.64
Goats dung,	32.09	42.44
Sheeps dung,	32.09	42.08
Dried night soil,	33.14	41.44
Dried ox blood,	34.24	41.03
Dried urine,	35.01	39.03

The reader will see how steadily the proportion of gluten is increased with the increased proportion of nitrogen in the manure. Prof. Johnston states that "the amount of nitrogen contained in each of the organic manures is a certain test of its value." Liebig says that animal manures act only by the formation of ammonia.

Mr. James Haywood has ascertained the proportion of nitrogen contained in a ton of the various commonly employed manures. (See Farmers' Magazine, Vol. 20, Page 188.)

	nitrogen.
1 ton farm-yard manure contains of nitrogen,	11 lbs.
1 ton nightsoil contains of "	39.8
1 ton of rape dust contains "	70.0
1 ton of fresh bones contains "	120.0
1 ton of dry blood contains "	366.0
1 ton of guano contains "	182.8
1 ton of sulphate of ammonia, "	470.0
1 ton of soot contains "	41.6
1 ton of nitrate of soda contains "	364.0
1 ton of pearl ashes contains "	299.0

One hundred parts of wheat grown on a soil manured with cowdung, which contains only a small quantity of nitrogen, afforded only 11.95 parts of gluten, and 64.34 of starch, whilst the same quantity raised on a soil manured with urine, yielded 35 per cent. of gluten.

All animal manures emit carbonic acid so long as nitrogen exists in them. In every stage of their putrefaction, an escape of ammonia may be induced by moistening them with a potash lye; the ammonia being apparent to the senses by a peculiar smell, and a dense white vapor.

Every farmer should fully understand the value and importance of nitrogen as a fertiliser of the soil, and the good effect on the wheat crop of those manures in which it abounds.

We may understand the properties of a certain manure, and yet not

be able to apply it properly. If we make use of an abundance of ammoniacal manures, the stem and leaves of the wheat plant will become so large and succulent that the roots will not be able to support them, and they will fall down and fail to produce a crop; we must try and remedy this evil by making use of a manure that will give strength to the stem, and vigor and size to the grain or fruit.

We see by various analyses that silica predominates in the straw of wheat, and that potash and phosphoric acid exist in very large quantities in the grain, and a certain portion of lime both in the straw and grain; let us shape our course accordingly; let us give back the soluble silica to the soil, by returning the straw, as an ingredient in well managed barn-yard dung. The farmer who sells his straw may think he is doing a very good thing; but he should be informed that he is thereby impoverishing his land by robbing it of the soluble silica, which is necessary to build up the straw of his grain crops.

Wood ashes contain a large proportion of potash and consequently are an excellent manure for wheat or any other crop in which potash exists.

Bones abound in phosphoric acid, a substance which forms a considerable portion of the grain of wheat. Bones should be collected and applied as a top dressing for this crop; bone dust is a valuable manure.

Common salt is a good manure and becomes doubly valuable when mixed with barn-yard-dung, guano or gypsum. Salt increases the strength of the stem, and the size and health of the grain.

Lime imparts health and vigor to the stem and grain, and a certain portion of it should be applied to land intended for wheat. It assists in dissolving the silicates and phosphates, counteracts the effects of certain acids, and in various ways promotes the growth of the wheat plant. Great quantities of lime are annually made use of by European farmers; it is to be regretted that so little of it is used by American farmers.

Guano has been applied with very good effect as a top dressing, it is a powerful ammoniacal manure.

Plaster is considered a good manure for wheat especially when mixed with salt. Some farmers complain that plaster causes their wheat to remain too long in ripening, and also to fall down, or become "laid"; an *early* application of plaster will remedy the first, whilst the addition of salt will prevent the latter tendency.

In another part I purpose to show that the productiveness of wheat may be greatly increased by a proper attention to *seed*, *rotation* and *manure*. It is now sufficiently evident that the richest soil in this country will not produce a crop of wheat, equal to those which are frequently raised by the European farmers, without a *change in the system of* management and cultivation.

PLOWING FOR WHEAT.

In preparing land for wheat, deep plowing is of the greatest service, but a due consideration of the nature of the soil will alone properly direct the farmer in performing this operation. If the soil is thin, deep plowing may turn up too much of the subsoil and be productive of evil. If the soil consists of deep loam or vegetable mould, deep plowing will be beneficial.

Some persons recommend once plowing as a sufficient preparation for the seed, practical men need not be told that this system of management will not hold good in all cases. It is true, that in some soils once plowing with an unsparing application of the grubber and harrow may do very well, but in others *frequent plowing will be necessary*. I think after the first plowing the grubber or wheel cultivator may be made in some cases to supersede the plow in the preparation of fallows for wheat, as it goes over ground much faster and can be made to penetrate sufficiently deep; it also brings up all roots of weeds to the surface where they can be allowed to wither by exposure to the sun.

Frequent plowing may render some soils too light and loose for the growth of wheat, as this plant requires a *firm, cohesive soil*; but the farmer need not fear that frequent plowing will dissipate the fertilizing ingredients of the soil, on the contrary it will increase and improve them considerably.

Doctor Lyon Playfair, in his "Lectures on the Chemistry of Vegetation," says that if the soluble silicate of potash be exhausted in a soil, wheat cannot again grow in it until, either by manure or *fallowing, the soil is again furnished with a sufficient quantity.*

Professor Low, in his Practice of Agriculture, asserts that "to receive the benefits of a sufficient fallow, it will be necessary to *plow the land several times, in order to liberate the imprisoned ingredients of the soil and fit them to be received into the minute roots of plants.*"

Liebig says that "in fallowing, soils are exposed to the action of the weather for the purpose of *enriching them in certain soluble ingredients.*"

These are the opinions of the most celebrated agricultural chemists, and where such high authorities coincide with our views it will be difficult to make us believe that land can be impoverished by frequent plowings. At the same time it will be well to bear in mind that wheat requires a strong cohesive soil, and too much working may render land too light; and therefore unsuited to the growth of that crop.

In some cases once plowing may be sufficient, but the farmer need not fear that by exposing fresh surfaces of the soil to the atmosphere, its fertilising ingredients will vanish. Every days' practice in the field or garden, tends to prove that frequent diggings and hoeings and stirring up of the soil, increases the fertility of the earth by exposing new surfaces to the atmosphere, which dissolves the mineral ingredients which form the inorganic food of plants.

In breaking land out of the "green sod," great care should be taken to plow deep and bury the grass perfectly.

The double paring plow or the "jointer," is an excellent implement for this purpose, as it possesses what is called in England a "flag" or small coulter, which pares away the grass from the edge of the furrow slice and turns it under; by this means the furrow slices lie compact and close together, form a perfect joint, and keep down all grass and weeds.

When plowing is carelessly or unskilfully performed, the furrow slices sometimes remain on the edges, instead of being turned quite flat, and the grass springs up between the sods, to the manifest injury of the crop.

In preparing land for wheat, the first plowing should always be the deepest, and when grass or clover has been turned down, it should not be brought up again by subsequent plowings.

The cultivator is an excellent implement for tilling land, but it does not go deep enough. The grubber or wheel cultivator supplies the place between the plow and the ordinary cultivator, as it can be made to penetrate to a sufficient depth.

The tests of good plowing should be:

1st. That it is performed quite straight.

2d. That the furrow slices be of equal width.

3d. That they are of equal depth.

4th. That they are laid quite flat, or nearly so.

5th. That the soil is plowed deep.

American plows are generally made with wooden beams; some are now made with cast iron beams. European plows are almost universally made of wrought iron, and this material is in many ways much preferable to wood.

VARIOUS METHODS OF SOWING WHEAT.

There are a great many ways of sowing wheat, which vary according to the customs of the locality and the nature of the soil.

Dibbling, or planting the seed in holes made by a small stick, has been extensively practiced in England, where excellent crops have been raised in this manner. By this mode a considerable saving in seed was effected, but it required a good deal of labor, and on account of this it has been discontinued even in England, and therefore cannot be attempted in this country; dibbling machines are sometimes used. Ridging has been the old method of sowing wheat, and this mode has been used for ages in every country in Europe. The ridges were made of various widths, according to the fancy of the farmer; sometimes they were covered with clay from the furrows, and sometimes the seed was sown before the ridges were made, and the seed covered by plowing the soil into ridges. This plan had one good feature, the wheat was relieved from stagnant water, by the furrows or drains which lay between each ridge.

Ribbing, or sowing wheat in small drills opened by a very small plow, superseded the ridge system, and by this method excellent crops have been raised. The drills are formed by a one horse plow, at about ten inches asunder and three or four inches deep; when the drills are ready, the seed is sown broadcast, a certain number of drills to each round, and then covered with the harrow. If a field has been properly ribbed, the seed will come up in perfect drills, and if the head lands have been properly managed, the crop will have a beautiful appearance; good crops are raised by this method.

Drill machines of various kinds are now used for sowing wheat, and they are very useful implements; a good deal of skill is required to guide them properly, and nothing looks worse than the serpentine track of a badly managed wheat drill. The horse or horses which draw it

require to be steady, and trained for the purpose. In some drills the shares or coulters are too close together, and the tubes are too narrow and deposit the seed in a narrow line. I would wish to have the drills nine inches asunder, and each drill two inches wide, that each of the plants may have a little space for itself.

Much difference of opinion exists as to the proper depth to cover wheat. In several cases both the disputants are right, for wheat covering should be regulated by the quality and condition of the soil.

Nature never intended that the seeds of the grasses should be covered deep, as in her system of propagation, the seeds are sown on the surface, and consequently receive little if any covering.

If wheat be sown deep in the soil, it will form surface roots, and the lower roots will decay. If it be sown tolerably near the surface, it will form surface roots, too, but the lower roots will not rot, they will continue to support the plant; a moderate depth is best, and as this must be regulated according to circumstances, a certain rule cannot be adopted.

Rich prairie land, when broken up deeply, the grass having been previously burned off, or turned down carefully and correctly, often yields about 25 or 30 bushels of wheat to the acre, for the first year, and something more the second year, as the sods and fibres have become decomposed. Prairies are sometimes deficient in silica as well as in phosphorus and lime, and if these manures were supplied in proper proportions, a very great increase in produce would be the result. Harrowing and rolling in spring, are of great benefit to wheat, as by these means the crust of the soil is broken up, lumps are pulverized, and hurtful insects exposed to destruction.

Fallowing is going out of fashion among improved agriculturists, as it is not considered good rural economy to have the ground remain idle for a year. The system of half fallowing, or preparing land for wheat after another crop of same kind has been removed, is coming into operation, in this case as well as in every mode of preparation for wheat, correct and careful plowing is of primary importance.

QUANTITY OF SEED PER ACRE.

With the exception of the comparative utility of deep or shallow draining, there is no question on which farmers differ so much as that of thick or thin sowing. Several scientific agriculturists recommend

thin sowing, and they point to a certain field: "look here! that field was seeded at the rate of *one bushel per acre*!" It is certainly true that many *excellent crops* have been raised from a very *small quantity of seed*, but there were several circumstances to favor the growth of the crop; on these occasions, the land was rich, the seed was got in in proper time; the soil was perfectly free from weeds, and the wheat having no enemies to encounter tillered out on all sides and produced a good crop.

On the other hand, when we take into account the numerous enemies that wheat has to encounter, and the misfortunes which generally fall on a thin crop, we think that thick sowing is by far the best and safest management.

How often have we seen thick crops ripen well and come to perfection in proper time, whilst thin miserable crops have remained unripe and fallen a prey to rust and mildew and destructive insects?

In Blackie's treaties on mildew, the following experiments are recorded as having been tried in the fields of a celebrated wheat grower, the late Mr. Coke, of Norfolk, England.

The first was in a thirty acre field, the seed was sown in autumn on a stale furrow, after a clover ley, two drill machines started at the same time in the middle of the field, one drill worked towards the west and the other towards the east, both drill-men received the same directions, namely, *to sow four bushels per acre*, one of them deposited the seed correctly, the other being a young practitioner guaged his drill wrong, and deposited *three bushels per acre*. The result was, the *four bushel seeding escaped* mildew and produced an excellent crop, whilst the *three bushel part* did not ripen in time, was attacked by mildew, and produced an inferior crop, and was the only thin wheat, and the only damaged crop on Mr. Coke's farm.

The other experiment was in a thirty acre field, sown in the same manner; a new drill was put to work on this field, and the man received instructions to sow four bushels per acre; but the blacksmith had guaged the drill wrong, and the man deposited five bushels per acre. The mistake was discovered and corrected after the first day's work, and the remainder of the field was finished at the rate of four bushels per acre.

This accidental experiment was exhibited at the following sheep

shearing festival, and was viewed by many practical farmers, who decided that the five bushel sowing was decidedly the best part of the field. It is but right to mention that both crops turned out well, and were perfectly free from blight and mildew.

From this circumstance, we can learn that it is safer to deposit too much, than too little seed per acre.

In the new soils of America a much smaller quantity of seed may be sufficient to stock the ground with plants, as tillering generally increases the number of stems; still the farmer who sows plenty of seed, will come off much better than him who sows sparingly.

Thinly sown wheat sometimes plants or tillers extensively, and sometimes produces a fine large head and plump grain, and under very favorable circumstances, may even excel thick crops, but the chances are very much against that favorable result, as rust and mildew and numerous insects seem anxious to destroy a thin, late ripening crop.

It is a well known fact, that animals which have been poorly fed and badly wintered, are subject to the attacks of a certain class of insects, which render their condition still more wretched and miserable; and it is also true that thin, poor, badly cultivated wheat, is the favorite prey of destructive insects and diseases.

The grain of English wheat is generally larger and plumper than the American varieties, and three bushels in this country, will furnish nearly as many grains as four bushels in England.

The quantity sufficient to seed an acre in Michigan, varies from $1\frac{1}{2}$ to 3 bushels, according to the state of the soil.

IMPORTANT DESCRIPTION AND ANALYSIS OF AGRICULTURAL PLANTS.

Every farmer should study the nature of the plants which he cultivates, the soil he tills, and the manure he applies in order to render that soil fertile.

The number of elements which exist in plants are said to be sixteen; of these, four are supplied by water and air, namely, carbon, hydrogen, nitrogen and oxygen, and these form the greatest proportion of every organic substance. The remaining elements must be derived from the soil in which the plant is cultivated. If the soil do not contain these elements naturally, they must be supplied artificially, that is by manure.

Every crop deprives the soil of a certain portion of inorganic ele-

ments, and suitable compensation must be given, or it will become barren—plants cannot live in it. In this juncture the agricultural chemist steps in most opportunely, and explains to us the composition of plants, analyses soils, and enables us to select the particular kind of manure which is best suited to the crop we are about to raise.

By experiments made at Bechelbronn in France, M. Boussingault ascertained that an average crop of wheat, weighed per acre, as follows:

	as stored.	*dried.*	*ash.*
Grain	1500	1285	33
Straw	3400	2550	178

These ashes being analysed were found to consist of:

	grain ash.	*straw ash.*
Phosphoric acid	15.51	.52
Sulphuric acid	.33	1.78
Carbonic acid		
Chlorine	traces.	1.07
Lime	0.96	15.13
Magnesia	5.25	8.90
Potash	9.73	16.37
Soda	traces.	.53
Silica	.43	120.53
Alumina		1.78
Moisture and loss	0.79	6.59
	33	178.00

We are told by Liebig and several other chemists, that the mineral ingredients found in the ashes of plants, represent the food which the plants have consumed; these substances are in fact the inorganic elements which they have extracted from the soil, and which cannot be consumed by fire.

100 parts of the ashes of the various plants mentioned in the following table, contain the specified amount of mineral ingredients:

	Wheat.	W. straw.	Oats.	O. straw.	Potatoes.	Turnips.	Clover.
Phosphoric acid	47.0	3.1	14.9	3.0	11.3	6.1	6.3
Sulp. acid	1.	1.	1.	4.1	7.1	10.9	2.5
Carbonic acid	....	....	1.7	3.2	13.4	14.0	25.0
Chlorine	traces	0.6	0.5	4.7	2.7	2.9	2.6

Lime,	2.9	8.5	3.7	8.3	1.8	10.9	24.6
Magnesia,	15.9	5.0	7.7	2.8	5.4	4.3	6.3
Potash,	29.5	9.2	12.9	24.5	51.5	33.7	26.6
Soda,	traces	0.3	....	4.4	traces	4.1	0.5
Silica,	1.3	67.6	53.3	40.0	5.6	6.4	5.3
Alumina,	....	1.0	1.3	2.1	0.5	1.2	0.3
Moisture and loss,	2.4	3.7	.30	2.9	0.7	5.5	....
	100.	100.	100.	100.	100.	100.	100.

These tables show the substances which plants extract from the soil, and by their aid we can discover the quantities which are taken annually from a given place, and they show us that a too frequent repetition of any kind of crop will exhaust the soil of the particular ingredients which that crop absorbs.

From these tables we may perceive that phosphoric acid and potash predominate in the grain, and silica in the straw of wheat; from which facts we may learn the necessity of supplying manures containing potash and phosphoric acid, and keeping our straw at home, and manufacturing it into manure.

These tables point out the necessity for a rotation of crops, as they show that *green crops differ essentially from grain crops, in the materials they extract from the soil.*

A judicious rotation of crops, is one of the most important arrangements in agriculture. In wheat growing it is essentially necessary to the success of the crops.

If we continue to sow wheat in the same field year after year, the soil will be exhausted, weeds will ripen and sow their seeds, and our crop starved for want of proper food, or choked with weeds, or devoured with insects, will not be worth the labor of harvesting.

PRODUCE OF WHEAT.

It is sufficiently plain that a very large crop of wheat cannot be raised, even off our richest land, in America, without the addition of powerful manures such as guano, bone dust, or nitrate of soda.

Few farmers are aware of the number of bushels of wheat that it is possible to raise, off an acre of land.

A farmer in England grew 96 bushels on an acre, by using salt, in addition to barn-yard dung; but this is not an uncommon quantity. In

the "Annals of British Agriculture" an instance is mentioned in which 200 bushels have been raised off one acre. This at first sight may appear incredible, but a close examination will enable us to see that such a return is not impossible.

In a treatise on husbandry, published more than 100 years ago, by C. Varle, Esq., the writer calculates that a square foot of land can give room enough to 30 ears of wheat, allowing about five square inches for each ear. Now it is possible for an ear to yield 80 grains in weight, of wheat, and 80 by 270, amounts to 21,600 grains, or 3 lbs. $1\frac{1}{4}$ oz. per square yard, which is more than a bushel and a half to the square rod, and consequently exceeds 240 bushels per acre;" but this amount has seldom if ever been realized, and taking into account the many disappointments which stand in array against the farmer, we shall be satisfied if we attain $\frac{1}{4}$ of the amount, which is 60 bushels, and this return can certainly be ensured by proper cultivation. I have frequently seen wheat produce 70 bushels per acre, and once or twice have succeeded in raising that amount myself; but I am very well acquainted with all the vicissitudes of a farmer's life, and have seen the most luxuriant and promising crops yield a very poor return, We cannot command the elements, but we can improve our soil by manuring, and observing a proper rotation of crops; and we can sometimes preserve our wheat from injury, by judicious management.

We have seen that it is not for want of room that 200 bushels of wheat cannot be raised on an acre of land; it must then be from a want of suitable ingredients in the soil, that the average produce of wheat is so miserably small, especially in this country.

It is a strange anomaly, that whilst American agricultural machines are the best in the world, and bear the palm at every European exhibition, the American cannot successfully compete with the European farmer in raising wheat; but such is the fact, and the reasons can be told in a few words. The wheat crops in this country are deficient, because:

A proper rotation of crops is not observed.

An inferior quality of seed is generally sown.

Suitable manures are not used.

Weeding is neglected.

Draining is not yet sufficiently practiced.

Harrowing and rolling in spring are neglected. A rotation of crops

has a tendency to *banish weeds* and to destroy hurtful insects, and also to keep the ground fertile by having a manured green crop, or a clover meadow, always succeed a grain crop.

There is an old proverb which tells us that, "one year's seeding makes seven years weeding," and we may frequently see *luxuriant* proofs of its truth. We should never allow weeds to *ripen and sow their seeds*, if we do, we may expect to pay a heavy penalty.

Too much attention cannot be paid to the subject of procuring *good seed* and having it perfectly free from smut and weeds. A steep of salt and water will effectually prevent smut, providing the seed be *dried with fresh slaked lime.*

Concentrated manures are generally good for wheat; I have endeavored to prove the value of nitrigenous manures by producing valuable tables. There can be no doubt but that the produce of wheat can be *greatly increased* by a little attention to the management of manure.

Harrowing and rolling in spring are sometimes of great benefit to the wheat crop; by this means the crust of the soil is broken up, lumps are pulverized, and rendered suitable nourishment for the young roots. The larva of hurtful insects, which lie hid *near the surface, are torn up and exposed to the attacks of birds, ants, and spiders, &c.*

Rolling makes a fine level surface for the cradle, or reaping machine, and counteracts the effect of heat by compressing the soil and rendering it fine.

DISEASES OF WHEAT.

Mildew, scientifically named, *puccinea graminis*, is a well known disease which is very injurious to wheat. It attacks the straw in the shape of brown patches. The microscope has revealed to us that these brown patches are masses of spores which have burst the epidermis or *outer skin of the stem.* It is now believed that these minute spores enter the stomata or *breathing pores* of the plant and there strike root, and extend their growth.

Mildew generally attacks wheat in damp situations, and in localities where too much shelter prevents the free entrance of sun and wind.

Cold undrained soils are generally the favorite abodes of rust and mildew and every description of blight. Wheat fields in which weeds abound are liable to the attacks of mildew, as moisture is retained by

the weeds. Thin, unhealthy, late ripening crops are sure to suffer, whilst thick, early ripening crops escape.

Thorough draining is one of the best preventives of mildew, as by this means stagnant water is removed and the soil is rendered warm and productive.

Rust, or *uredo rubigo*, attacks the interior of the chaff, in the shape of blisters. It is of an orange color and generally causes the grain to become shriveled and worthless. This disease is sometimes dissipated by heat and bright clear weather. It mostly attacks wheat in cold lands. The application of *lime as a manure* and the removal of injurious shelter, and excess of moisture are the best remedies for every kind of rust.

Uredo linearis is a kind of rust which in a great measure confines its attacks to the *straw*, on which it appears in spots like ironmould; it sometimes extends to the grain and acts upon it in the same way as *uredo rubigo*.

There are two kinds of smut. The first is called *urato segetum* and appears in the shape of *black ears*. This disease is found in every kind of grain crop, and may be observed immediately after the ears have shot out. It destroys the entire head which crumbles away and disappears. Some soils are subject to this disease, and it seems to be communicated to the seeds by spores which remain in the ground. Laying down the land to grass, is the surest method of banishing *this kind* of smut.

The second kind of smut is named *uredo fetida*, from its stinking smell. This kind takes the place of the kernel of the wheat. It is composed of an immense number of minute spores. It is calculated that a single grain of smut contains four millions of spores and by means of these the disease is propagated, as they are absorbed by the roots of wheat and carried upward by the sap. By the aid of the microscope the progress of these spores may be traced through the stem of wheat to the head. The sporules of smut adhere to the grain of wheat, by an oily substance which *pickling and washing entirely dissolves and cleans away*.

Poisonous steeps for wheat are unnecessary and should never be used. They have often proved fatal to domestic animals of various

kinds. Salt and water make a safe and effectual steep for the prevention of smut and no other is required.

At a meeting of the Glasgow Agricultural Chemistry Association, Professor Johnston brought forward several chemical preparations, which he recommended as steeps for wheat; but several practical farmers who were present, remarked that these mixtures were *unnecessary*, as salt and water had been found sufficient. The seed after being raised from the steep, should *be dried* with fresh slaked lime.

Sprouted grains of wheat should never be sown, they *a e utterly unfit for seed.* In some cases they may grow, but scarcely ever produce a good head, and are more liable to be smutty than any other kind of seed. Some persons say, "grown grains will make as good seed as any other," if so, *let them sow them.* They will soon be of a different opinion.

Too much care cannot be taken in the preparation of seed wheat It should be *perfectly* cleaned by the fanning mill, and also put through the separator, if one can be procured. In the steep it should be stirred well to *wash the grain*, and all light grains which swim on the surface should be skimmed off and destroyed.

Wheat is subject to many diseases which assume their most destructive forms in cold damp soils. The removal of stagnant water by thorough draining tends to increase the health and vigor of the wheat plant, and to banish rust and smut.

INSECTS INJURIOUS TO THE WHEAT CROP.

The wire-worm, the cut-worm, the grub, and the larva of nearly every kind of beetle, gnaw the young roots and stems of wheat, and sometimes prey on them to such an extent that whole fields are laid waste. Should the crop survive the attacks of its subterranean enemies another foe appears in the shape of the Hessian fly, *(cecidomyia destructor)* which is, as it name implies, a destructive enemy to the young crop. These insects are produced from eggs deposited by the parent fly on the leaves of the wheat in the latter end of September, or beginning of October. In two weeks, or sometimes in a much shorter period, the worms appear and crawl downwards until they penetrate between the leaves and the stem and reach a joint, here they remain, a little under the surface of the ground, and continue to prey on the sap until their

increased size, and the enlargement of the stem cause them to be imbedded in the stalk, which generally breaks off in the places thus injured. Whole fields are sometimes destroyed in this way. The larva of these flies remain in the ground all winter, sometimes attached to the stems, and sometimes buried in the soil.

Harrowing in the spring is an effectual *check* to the Hessian fly, as the larva are torn up and exposed to destruction, whilst rolling crushes those that are attached to the stems.

A rotation of crops has a tendency to destroy all wheat insects, as the young are exposed to destruction by the cultivation of drill crops.

The wheat fly, *(cecidomyia tritice)* is another troublesome enemy to the farmer. Its history has been investigated by Kirby and several other intelligent entomologists. The parent is a small fly, shaped like a mosquito, but of an orange color, with wings rounded at the tips and fringed with hair. The female is furnished with a retractable ovipositor, four times as long as the body, with this she deposits her eggs in the husks of the flowers; the worms are produced from the eggs in a week, and feed upon the young grain, which is suitable nourishment for them so long as it continues in a milky state. As many as forty of these minute orange-colored worms have been found in one husk. Of course the grains thus attacked are generally completely destroyed, or rendered shrivelled and worthless.

The wheat fly usually makes its appearance when the ears are commencing to shoot out, and attacks them as they emerge from the sheaths. We may observe that during the first few days of their appearance, only one side of the ear is visible, consequently the attacks of the fly are confined to one side of the ears; and this is the reason why so much wheat is to be seen with one side of the ears damaged, and the other quite safe.

From this circumstance, we may perceive the reason why a thick, even ripening crop generally escapes the ravages of the fly, better than a thin, uneven one. In the first case the wheat shoots out strong, and gets ahead of the fly; in the latter the ears come out slowly and at different times, according to the first or second growth of the stems, and are cut off in detail.

The fly is found longer on spring wheat, than on that which has been sown in the fall. It seems to feed on a kind of gum which adheres to

the newly emerged ears. As many as thirty-five flies have been counted on a single ear. The eggs are generally found on the inner chaff, upon which the furrowed side of the grain is imbedded, varying in number from two to ten; they are gummed down by a glutinous substance, and adhere firmly. When the grain becomes too hard for their food, the maggots leave the ears and descend into the ground, where they pass the winter in a pupa state.

If wheat be succeeded by a well managed green crop of any kind, these pupa are disturbed by the plow or hoe, and exposed to the attacks of numerous insect enemies, which are intent on their destruction.

For these reasons spring harrowing has been found a very good method of preventing the ravages of the fly.

THE WEEVIL.

After wheat has been stored in the granary, it is subject to the attacks of another tribe of insects, and among them the weevil (curculio granareum,) is the most formidable. It is often very destructive. The female deposits her eggs on wheat in the granary, and the young weevils soon commence preying on the grain.

Some barns are so infested by these insects, that an immense quantity of wheat is destroyed by them. Stacking the wheat outside, has been found a good means of banishing the weevil out of barns; for the supply being cut off, they must evacuate the fortress. Grain can sometimes be better saved by stacking outside, than by storing in the barn. In a wet season, small stacks should be made with funnels or air passages, for the purpose of drying the sheaves. In the north of England, as well as in Scotland and Ireland, many plans are used for the purpose of securely harvesting grain during a wet season.

In Belgium the farmers use a screen for the purpose of separting the weevils from the wheat; this is called a Rylanderic, from Rylander, the Belgic name for the weevil. It is a large screen made of wire, and is placed in a slanting position, supported by a prop; a hopper at the top receives the wheat, and as the grain slides down, the weevils fall through, and are thus separated from it. A good fanning mill or separator will answer the same purpose.

In the present improved state of machinery, the American farmer can easily supply himself with a method of exterminating the "curculio of the granary.

CONCLUDING REMARKS.

I have endeavored to make this essay as practical as possible; at the same time, in order to meet the wishes of scientific farmers, I have introduced valuable analyses, for the purpose of showing the composition of the wheat plant, and of the soil and manure which are suited to its growth. I have pointed out "rotation of crops," and the proper selection of seed, as matters of the greatest importance. On the subject of procuring good seed, I will remark, that as there are several farmers in this State, who obtain good seed at considerable expense, and raise excellent crops; it would be well if they would forward samples of grain to the office of the State Agricultural Society; by this means many farmers would have an opportunity of inspecting these superior seeds, and of ordering them direct from the growers.

Michigan is favored with an abundant stock of manures, adapted to the successful cultivation of wheat, and her vast quarries of gypsum and beds of marl are inexhaustible.

It is said that gypsum has a tendency to retard the ripening of wheat, for this reason it should be applied early in the spring, and if a little salt be mixed with it, it will assist in correcting the evil.

Marl should be raised for a considerable time before it is used, as exposure to the atmosphere dissolves its mineral ingredients, and prepares them to become the food of plants.

Every farmer should *prove the efficacy* of manures by experiment be it on ever so small a scale. If we can raise *a bushel* of wheat on a square rod of land, we can raise 160 bushels per acre, (in some cases more has been raised.) If we can grow half a bushel per rod, this is at the rate of 80 bushels per acre; one fourth of a bushel per rod, is 40 bushels per acre, &c.

Market gardeners are enabled to raise immense crops of vegetables by having their soil *deeply tilled, well manured* and *sufficiently stocked with plants;* and farmers might derive a useful lesson from the successful gardener, who can inform him that *one acre* properly managed will produce more than *ten acres* badly tilled and insufficiently manured.

I have pointed out the necessity of drainage; if stagnant water be not removed a full crop of wheat cannot be obtained.

How often do we see a fine crop injured by neglect or mismanage-

ment in the harvesting? It is well to direct attention to this important part of rural economy and to advise farmers to be more cautious in securing their crops.

Spring harrowing is sometimes of great service to wheat, but this operation should be carefully performed and a very light harrow should be used, as the breaking up of the crust of the soil and the pulverization of lumps are all that is required. Harrowing prepares an excellent seed bed for clover and grasses. Rolling covers the seed and also makes a fine, smooth surface for the reaper.

We are told that "the man who makes two blades of grass grow where only one grew before, is a benefactor to his race." If so, how much more useful is he who raises *two bushels of wheat* in a space that heretofore *produced but one?* That this can be done by proper attention to *seed manure and rotation of crops, &c.*, I have no doubt; neither *will you, reader, if you make the experiment.*

SUPPLEMENT.

More than six months have elapsed since the foregoing part of this essay was written. The price of wheat is now much lower than it was in the fall. Some farmers have lost considerably by disposing of their grain *too early in the s ason*, others by keeping *it over too long.* Some have been fortunate by steering a middle course and disposing of their wheat when prices were high. I would not advise farmers to speculate too much on an expected improvement in the market. I would have them thresh in proper time, so that the straw may be consumed *as fodder or litter*, and turned into manure during the winter and spring. I never like to see a load of straw in the market, nor a stack of it remaining in the farm yard during summer, except such should be required as litter for house fed animals.

I respectfully call the attention of farmers to the remarks I have made on the management of sprouted wheat.

Although I have mentioned the wonderful produce which has in some cases been obtained from an acre of wheat, I do not wish any person to think that such an immense return can be expected even *from the best wheat soil* in ordinary seasons.

If we wish to raise great crops we must make extraordinary preparations for doing so. The land must be extremely fertile, the seed must be uncommonly good, the plowing, harrowing, rolling in spring,

weeding, &c., must be all *extraordinary* when in addition to all these essentials the crop is favored with a propitious season, the farmers granary "will speak for itself."

I earnestly recommend a frequent change of seed, also the careful improvement of seed by selection and propagation.

I have lately received from Europe an interesting report of experiments tried by the members of an agricultural club at Haddington, Scotland, in order to test the value of several kinds of manure as a top dressing for wheat. In these experiments, the superiority of guano has been clearly established, and it was acknowledged by many practical farmers that as a top dressing for wheat, *guano stands unrivalled.* It was stated at this club that on farms of 600 acres in the vicinity of Haddington as much as $3000 are annually expended in guano with the most *profitable* results. Michigan farmers take the hint and make experiments with different manures as top dressing for your wheat.

COMMUNICATIONS, ETC.

SHORT HORN COW,

SHAKER LADY, (FORMERLY I. O.)

Red, with some white marks; 7 years old; winner of 1st prize at State Fair at Detroit, Oct., 1855, in her class of cows 5 years old and upward—bred by Shaker Society, Warren county, Ohio—owned by Crippen & Freeman, Coldwater, Michigan. Her pedigree was given in Michigan Farmer, two years since.

Permit us, in giving the above portrait, to say a few words in relation to our stock, and make a few remarks as to the attainment of certain valuable qualities in animals, by a strain of judicious breeding, established and kept up in the progeny by careful selections—such as reducing the amount of offall and coarseness, with large secretory properties. Sucsess in any branch, depends on proper management. The said Shaker Society, under the guidance and management of Messrs. Johnston and Boyd, two leading and intelligent Trustees, have devoted much attention and spared no expense in breeding Durhams, with the object of obtaining the greatest milking qualities; in which they have most admirably succeeded, as a visit to their daries clearly show—not loosing sight of form and purity of blood. They have acted upon the well known principle, that certain properties are imparted by parents to their offspring, and may be established as fixed peculiarities; hence we see color, points, size, speed, strength, &c., characterising certain varieties of animals. It is also a settled fact, that the internal arrangements, or in other words, the action and economy of the circulating system may be materially influenced.

The life, health and growth of all animals are sustained by the secretory system, and in proportion to its development, they appropriate

a greater or less amount of food consumed, to whichever faculty is called most into action; whether general growth, milk or meat.

That different animals of the same family, when bred promiscuously, without due regard to certain qualities, soon acquire different degrees of secretory powers, as is seen by some giving greater returns for amount of food than others; hence, if a cow is a deep milker, when dried off, she takes on flesh rapidly, as a large quantity of milk is evidence of large secretory powers, which property or peculiarity can be perpetuated in offspring, by applying it in both parents, as "like begets like."

The above cow having been before the public, and a high opinion passed upon her in competition with many fine animals, I will name her as a case in point, corroborative of the above remarks, which are also substantiated by others in our herd of same blood; and as evidence of our high opinion of the Shakers' judicious breeding, after examining other herds, we avail ourselves at once of that attainment which has cost them much time, attention and expense, and recently purchased of them six more head at high prices, closely related to our previous purchase, which we have tested to our satisfaction.

When Shaker Lady is not in milk, her capacity to take on flesh is truly astonishing. Last fall she had her bag injured, and was dried off, but with no extra keeping during the winter, she continued to gain flesh, up to her time of calving, a few days since—she was not allowed a quart of grain per day. In March she weighed 1620 lbs—girth 7 feet 4 inches. Several days before dropping her calf, two pails of milk were taken daily from her—she is now giving over that quantity, and no doubt when turned to good grass, will come up to her yield heretofore, of thirty-two quarts per day.

We have a sister to her—a beautiful red four year old, within two months of giving us a calf from the celebrated bull "Capt. Balco," whose equal, judges in England have decided is yet to be seen. She now gives over five quarts of milk of richest quality, per day. Also another sister, left with the Shakers to be put in calf by said bull "Capt. Balco" —she is bringing up two calves in high condition—Speck, which was awarded 2d premium in State stock, and the prize in foreign stock last fall at Detroit, is likewise from same bull, (Andes,) as the above cows. We have not tested her when in full milk, but judge her equal to the others—her dam and grand-dam were two of the greatest milkers on

Shakers' records, which they keep as a guide in breeding. We might name others in our herd no less esteemed, with calves from crosses held in the highest repute. Mr. Johnston informed me they sold near thirty head of steers, of same strain of blood of our cattle, to an extensive and successful grazier, who considered them the most profitable lot he had ever fed, and takes all the yearling steers they will turn out, at $30 per head. They have several yoke of splendid full bred Durham oxen, and one yoke of well bred Devons, and consider the former equal to the latter in quickness and endurance, and as good flesh holders.

We feel that we have selected a stock of short horns particularly adapted to the wants of our State, possessing qualities for the dairy and shambles. We would be much pleased to have our cattle; Southdown sheep; Suffolk, Essex and Berkshire pigs examined by all admirers of such stock, and also take a passing glance at Brahmas, Cochins and Dorkings.

CRIPPEN & FREEMAN.

Coldwater, May 6th, 1856.

THE POTATO.

BY E. C. ROBERTS, OF SALEM, WASHTENAW COUNTY.

As in the animal, so in the vegetable kingdom the numerous families have their circumscribed bounds, and flourish best in their indigenous soils. The potato is a native of the high and elevated regions between the tropics, and has flourished well in many lands from the equator to the polar regions for nearly three centuries. This circumstance proves it to be a hardy plant and among the esculent roots it stands first in point of value and it would be hard to supply its place with another. I believe I have found the desideratum by observing nature's unmistakable laws.

First. I select a piece of arable land—sheltered from the west and northwest winds, declining to the east or northeast, on which I have harvested wheat, oats or corn the same year—and plow it in the fall by throwing it into ridges as is frequently done for corn in the spring. Early the next season I mellow my land thoroughly, then throw it into beds about four feet wide, in a direction that will allow the water to drain off in the furrows between the beds. I then make two furrows, about six inches deep, lengthwise of each bed. In these furrows I drop whole, sound, well-shaped, middle-sized potatoes, of some hardy variety, about one foot apart, and cover with a hoe, making the ground level. By the middle of May my plants are generally fit for hoeing. This I do in a way to destroy the weeds, mellow the ground and leave it level as before. From time to time I pull the weeds, if any attempt to grow. Late in the fall I cover the beds with leaves, or straw, sufficiently to prevent the roots from chilling or freezing; four inches are generally sufficient. Early the next spring I dig and plant other beds as I planted them the year previous; always observing to have my

beds prepared before the potatoes sprout, and dig and plant immediately. This method excludes the potato almost entirely from the air, and keeps it sound and healthy. I have found no other method to equal it; but sandy or gravelly land must be selected for this use, with deep soil. If any other is made use of it ought to be well underdrained or the beds raised sufficiently to keep them dry.

In growing potatoes for culinary use, I pursue a different plan, viz: I select a piece of naturally rich, dry land, or some that has been made so by cultivation and draining. If sward land, plow early in the fall, to allow it time to rot. As soon as the soil is sufficiently dry in the spring it should be thoroughly plowed and harrowed, ridged and cross-furrowed, (the latter about six inches deep, or two-thirds the depth that the plowing had been done,) so that the ridges and furrows shall be three feet apart each way; drop a whole, sound, fair sized potato, just dug from the ground, (which has been raised and kept as above described,) in every place where the furrows cross the ridges; cover with a hoe, about four inches in depth.

REMARKS, AND FURTHER PRACTICE.

Ground prepared and planted in this way, will not be likely to be harmed by heavy rains, nor troubled by weeds, as when cultivated in the usual way. The soil will become finer at the time of hoeing, which should be done before the plants are in blossom. The furrows should be turned towards the plants, which finishes the last hoeing, but the plants must be wed if any weeds afterwards attempt to grow.

Potatoes intended for the next season's use, should be dug early, and packed in dry sand, (if they are kept out of door,) and covered at least two inches with earth, then with four inches of straw, again with earth sufficient to keep them from chilling or freezing. Last of all, a roof should be put over them to keep off the sun and the wet, and some barn litter thrown upon the piles after the earth has frozen six inches deep. If kept in a cellar they should be dug later, but packed in dry sand. Potatoes raised for culinary use, should not be used for seed purposes.

The above course pursued for a few years will materially improve the potato. It will no longer cast its blossoms, but bear balls, which should be gathered from the best varieties, packed in dry sand, and kept during the winter free from frost, and free from wet; early the next spring, the

seeds should be pressed out and mixed with sand, to enable the farmer to sow them in drills, on beds previously prepared in his seed patch. These plants should be cultivated with care and kept free from weeds, but not urged to a forced growth by stimulating manures. In the fall they should be covered with leaves and straw, sufficiently to protect from the inclemency of the coming winter. In the spring dig them before they sprout, and plant the fairest in seed beds; as soon as any of these new varieties have become more productive than the old, (if their quality is good) save seed balls from them, and plant and pursue the same course as above directed, and judging from what I have seen and witnessed, I say without diffidence, you may expect a rich reward.

If the above is a rational course, I have not labored in vain, for it will commend itself to whoever hears it proposed. Since I wrote my former essay, the numerous encomiums I have received from agriculturists, both in this country and in Europe, must have fallen under the notice of every news reader. This, backed by my own experience, prompts me to throw off diffidence and communicate my discoveries to the criticism of an enlightened community; trusting by so doing I shall be the means of eliciting truth, and thus benefiting all.

REMARKS ON THE CAUSE OF THE POTATO ROT.

All have noticed in these latter years, that the potato plant has lost much of its original stamina. This I assert is the effect of wrong cultivation, and not an effect of a change in our climate. I have found by repeated trials, that a potato taken from the cellar early in the spring and planted, will remain sound from four to six weeks longer than a like potato taken from the same place and planted four weeks afterwards, other things being equal; and the former will stand a chance to be sound, while the latter will be unsound or ill-flavored; also, that potatoes planted on deep-plowed, light soil, will remain sound much longer than the same variety planted on a heavy soil, plowed shallow; that the result will be similar to early and late planting; that strong, heating manures cause the early decay of the planted tuber; and that the same varieties planted on poor soil, at the same time, would remain sound several weeks longer than a potato kept in the soil where it grew, (as previously described,) and dug and planted in the spring before it sprouts, will remain sound longer than one kept in any other

way; that a potato having all the eyes lightly cut out, but one single eye, will remain sound longer and grow more thrifty than one planted in the usual way; that in all cases the soundest potatoes will be grown from those that remain sound the longest after planting.

This convinces me, and I do not see why it should not every man, that the rot is caused by the early decay of the tuber that is planted, which imparts to the plant a sour fermenting juice, disabling it to stand or bear the different varieties of weather, and to perfect the tubers produced. If I have attained to a knowledge of the cause, then it is easy to explain the different results of different years, and the reason why so many different theories have been proposed by different writers, viz: One has recommended mowing the tops; another planting the feet on the sides of the hill, and pulling out the tops whilst the potatoes are left in the ground.

Either practice, if performed at a proper time, might prove beneficial to diseased plants, but a difficulty would occur with many, viz: the proper time to perform either, to prevent disease from entering the tubers, as it commences before the signs are visible on the tops; but it might be known by dissecting the stalks. Another has recommended the producing and obtaining sprouts to cultivate instead of tubers; this would be likely to bring forth sound tubers, but they would not be as mealy and dry as might be desired, and would soon dwarf the potato. Others have kiln-dried the tubers before planting, or cut out the eyes and dried them until they would rattle, thus deadening the juice and preventing its flow, and the result would be the same as that obtained by planting sprouts, with less cost.

Some recommend planting early to avoid the rot. If the removing the potato from the ground nearly one-half of the year has produced the rot, then the latter is timely advice, for the potato better be acclimated to earth than to the cellar, for it will grow under ground and form a bed of roots, (if it is planted early,) though it be yet too cold for the plant to flourish above ground. The potato loves a cool climate; thus an early growth is friendly in more than one respect, to the plant. Some have planted late and obtained a fine crop, the frost becoming the scythe to mow the tops, and thus prevent the flow of those juices that would have produced decay. I have explained a sufficient number of examples, not before rationally explained, to convince the

most skeptical of the ease with which my theory explains all others that have been useful. With these few and imperfect remarks, the above is submitted to the consideration of the Executive Committee of the State Agricultural Society of Michigan, trusting that their disposition of it will be honorable to myself, by enabling me to confer a benefit on the Society, and through them on the world.

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From nearly the first of Mr. Roberts' researches into the disease of the potato, I have been conversant with him, and have myself adopted his theory, and practiced upon it. I am fully convinced of its truth and importance to the world. And while it claims to be the only perfect and radical cure, it does not conflict with any theories which have partially restored this valuable esculent, but gains additional strength by its perfect harmony with them all. LAWRENCE NOBLE.

Salem, Dec. 18, 1855.

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Having planted seed procured of Mr. E. C. Roberts, for two years past, I find my potatoes far superior to any I have raised for ten years previous; and from the knowledge I have of his theory, I have no doubt of his success in restoring the potato to its original purity.

J. H. PHILLIPS.

Salem, Dec. 19, 1855.

THE REAL CAUSE OF POTATO ROT, AND THE BEST MEANS OF PREVENTING IT.

BY EDWARD MASON, OF DETROIT.

That the potato rot has been the cause of a great deal of calamity to the human race, is a fact too evident to be contradicted. In those parts of Europe where the potato formed the principal food of the poor, its sudden failure left them without any means of support, and famine and pestilence wasted the miserable population. On the banks of the Rhine and the Shannon, the grass now grows over many an humble grave, in which sleep the victims of the potato rot.

Although it is not likely that the inhabitants of the United States will ever be compelled to resort to the potato as their principal food, still the cultivation of this valuable root will always be a matter of the greatest importance; and every method of preserving it should be carefully tried.

Every physician will inform us, that in order to effect a cure, it is essentially necessary to understand the nature of the disease; and in preventing the ravages of the potato rot, it is necessary that we should understand the nature of that malady.

The potato disease is certainly atmospheric, and generally makes its appearance after lightning. I have frequently seen marks of it on the leaves of the ash, the tender shoots of the Canadian poplar, and on the young branches of the hawthorn, sometime previous to its appearance on the potato. Its attacks on the potato plant are first visible on the uppermost leaves, and always on the backs of the leaves, in those places where the lateral branches form an angle with the mid-rib or leaf stem. The leaves of the potato, like those of other plants, close up at night, so that the backs of the leaves are the parts presented to the ac

tion of the dew, moisture, or rain. It is therefore on the backs of the uppermost leaves that the greatest amount of dew lodges.

Now I will prove by the authority of some distinguished chemists that rain and dew, at certain times, contain a deleterious ingredient known as nitric acid, and when in combination with ammonia, as nitrate of ammonia.

Doctor Ure, in his "Dictionary of Chemistry," says that the two principal component parts of the atmosphere, when in certain proportions, are capable of combining chemically, and forming nitric acid.

Professor Johnston in his lectures on agricultural chemistry, states that when a succession of sparks is passed through common air, nitric acid is slowly but certainly formed.

Liebig found nitric acid always present, in seventeen examinations of different rain which fell during thunder storms, and could only detect it twice in sixty examinations of rain which fell without thunder. He also states that the rain which fell during a thunderstorm which visited Nismes, in France, in 1842, was actually *sour* with nitric acid.

Mr. Richard Lloyd, in a letter to the Irish Farmers' Gazette says, "that the dropping from a sycamore tree, the leaves of which had been discolored by blight, was blown by the wind on some clothes which were hung up to dry, on a hedge six yards distant, holes were burned in the clothes; and where some drops fell on the arms of a woman who was attending them, there was a sensation of pain, with red spots, which continued for several days. This shows very clearly that some poisonous acid is contained in rain and dew, at the time of the prevalence of the rot. That rain water contains a considerable portion of ammonia, is a fact well known to all; and the particular time when it contains the greatest quantity, is when ammoniacal exhalations are evolved from putrid animal and vegetable substances. Nitric acid and ammonia have an affinity for each other, and when they are in combination, they form nitrate of ammonia, which is very powerful and destructive.

I have seen so many instances of the rot being caused by rain and dew, that it is quite impossible that I could be mistaken in this particular.

I have seen potatoes in well-finished drills, perfectly sound and free from all disease, whilst those in badly formed drills were rotten and

worthless. Even in those drills which had been carefully moulded, I have seen that the tubers which grew so near the surface as to crack or break the soil, were damaged by the rot in those places where rain had touched them, whilst the tubers which had not been touched by rain, remained free from disease. I have observed that potatoes which grew under the shade or drip of trees, suffered more than those which grew in the open air, and this difference was so strikingly apparent, that it was evident some deleterious acid had fallen on the potatoes, from the leaves of the trees.

Sometimes the tips of the leaves are withered by blight; now it is well known that plants have the power of attracting moisture from the atmosphere, and when the leaves are closed up at night, the tips of the leaves are the first to receive those particles of dew or rain which contain the elements of blight.

Now I think I have proved that the potato rot is caused by nitric acid, which in a highly excited state of the atmosphere, is produced by electricity. That this acid, being condenced by the cold, is attracted by the dew, moisture or rain, and lodges on the leaves of the potato plant. The first part attacked is generally the tip of the leaf; the second, the backs of the leaves; after this the stem, and then the base of the stem immediately adjoining the old seed.

Some persons who had not sufficiently examined this matter, were led to suppose that the rot commenced in the o'd seed. The reason of this mistake is, that when dew contains but a small portion of nitric acid, it is not strong enough to burn the leaves and stems; but when large quantities of dew are collected by the leaves and poured down at the base of the stem, on the way to the roots, the acid is powerful enough to damage the stem in that place, where it joins the old seed.

Sometimes the potatoes decome damaged and spotted after they have been taken out of the ground; this is caused by the acid having been absorbed by the roots, and taken into the circulation of the potato, before the tubers become ripe. One of the principal means for preventing the rot, is to have the crop ripe early, and thus out of danger when the season of blight arrives. The next important point in potato culture, is to have the drills so formed, that they shall throw off the rain which at certain seasons contains ingredients hurtful to the tubers.

Boussingault, the eminent French chemist and agriculturist, states

that the potato rot has for many years been prevalent in Central America, where the potato is said to be indigenous; but it is confined to low, damp situations, and hollows where rain-water collects after summer showers; and this is a strong proof that the acid which causes blight, is frequently conveyed by rain.

On this subject, hear the testimony of a practical man: Mr. David Martin, of Morehead, Fifeshire, Scotland, thus writes to the Dundee Courier. "I have not had a diseased potato for the last three years, by adopting the following plan: I make my drills three feet apart, and as soon as the stalks are formed, I bend them all to one side, and raise up the earth well to them on the other, making a deep furrow so that the rain is carried away from the roots. The potatoes grow out of the sides of the drills, and in this position receive no injury from the rain which falls during thunder storms." Mr. Martin also states that he operated once on alternate drills, and whilst the potatoes raised by his new plan, were perfectly sound and free from disease, those raised by the usual method, were completely destroyed by the rot. These experiments were made at a time when the rot was ravaging the potato fields of Europe. Every grower of potatoes may derive a useful lesson from these facts, and manage so to form his drills or hills, that water may not enter about the roots of his potatoes.

The rain which falls in the early part of the season, is of course of very great benefit to the crop; no injury from rain need be apprehended before the latter end of July, and the beginning of August.

Some writers attribute the failure of the potato to its propagation from the tuber instead of from the seed of the apple or berry. Unfortunately for their theory, many reasons can be adduced to controvert it. It is well known that many plants and trees which bear seed, may also be raised from cuttings; the strawberry bears seed, yet is raised from its runners; the sugar cane bears seed—it is now propagated by cuttings. It is quite clear that cultivation very much improves nearly every kind of vegetable and plant.

It is well to raise potatoes from the seed of the berry. In my essay on the "Cultivation of the Potato," published in the Transactions of the Michigan State Agricultural Society, for 1853, I have described the most approved method of raising potatoes from the apple or berry. Many new varieties may be originated in this way. Old kinds deterio-

rate, and require renewal. Potatoes raised from the seed of the berry will continue to bear berries for several years, whilst those raised from tubers scarcely ever bear berries. It is a great mistake to suppose that raising potatoes from the berry, will prevent the rot. I have seen young seedlings in the hotbeds, destroyed by the rot.

It is also a mistake to say that fall planting, or keeping the tuber in the soil all winter, will prevent the rot; it will do no such thing. I have several times planted potatoes in the fall, and although their produce in some cases, turned out well, if not ripe in time, they were as liable to be destroyed by the rot, as the spring sowings. One good point in fall planting, is that by this treatment the tuber is not wasted by fruitless sprouting in pits or cellars, but fall planting cannot be adopted in this country on account of the frost, and it is useless to dwell on plans which are impracticable. The system which I recommend is simple and practicable, it is according to the principles of scientific husbandry, and agrees with reason and common sense.

I would certainly keep the potato in the soil all winter, but in a situation totally different from that which some recommend. I would keep the tubers securely stowed away in a root house, pit or cellar, with the intervals between them filled with clay or sand, and in every way well secured from rain and frost; I would plant the tubers before they were weakened by sprouting, and my principal care would be to have the crop *ripe, or nearly so*, before the appearance of blight. Late sown crops of any kind are generally subject to disease, but *late potatoes* are almost invariably of inferior quality, and are sometimes entirely destroyed by the rot, whilst early sowings escape that malady.

I will now produce the testimony of impartial witnesses to prove that the disease is atmospheric, and this is the most important point to be decided.

Beginning with 1845, the first year of blight, I will make an extract from the Report of the Commission of Agriculture of the Province of Groningen, in Holland, on the potato disease. After some preliminary remarks, the report thus proceeds: The intense heat of the summer of 1845 was succeeded by cold and rainy weather, which lasted from the 15th of July to the end of the month of August. On the 21st and 22d of July, an extraordinary fog was perceived in many places. On the 28th of July the first symptoms of disease were discovered in the

Provinces of Groningen and North Brabant. The disease commenced at *the uppermost part of the plant*, and attacked successively the leaf, the stem, and the tuber. This is fully established by experiments made at Groningen.

The Commission does not agree with those naturalists who think that the origin of the disease may be attributed to the race of potatoes having gradually deteriorated, as in the Commune of Marum and Province of Groningen, among other instances, is to be seen a field of potatoes, the produce of seed raised from the apple or berry, *equally attacked, and suffering in common with the general crop.* This and an infinite number of similar cases, prove incontestibly that the disease does not originate in the seed. This is the best and most reliable evidence that Holland can afford.

Well, after four years had elapsed and millions of experiments had been tried, we find in 1849, the Royal Agricultural Society of England, receiving the following report from Mr. Bosanquet, of Herefordshire, to whom they had given seeds of the potato-apple, or berry, which had been imported from Chili, in South America. Mr. Bosanquet states as follows: "I sowed the seeds in pots in my vinery, and afterwards removed them to the open air. About the middle of July the disease made its appearance in my garden. The Chilian potatoes were more affected than the common varieties, their leaves were soon destroyed. I consider this circumstance as presumptive evidence that the disease does not commence in the potato itself, but is purely atmospheric, and is more prevalent when the atmosphere is strongly charged with electricity, and when there is a fall in temperature, accompanied with much wet. The disease certainly commences in the leaves, and extends gradually to the stems and tubers, in the same manner as mortification extends in the human frame from diseased parts to sound ones." Such is the evidence elicited by that renowned Association, the Royal Agricultural Society of England, and it may be received as the opinion of the most distinguished agriculturists in England.

We will now hear what America has to say on this important subject, and as Minnesota is a recently settled territory, where the soil is rich and new, and unexhausted, it must be suitable to the growth of the potato. We will permit a farmer from that region to make a statement of facts.

In the Patent Office Report for 1851–2, (page 467,) is a communication signed P. Prescott, Superintendent of Farming for Sioux. He writes from St. Paul, Minnesota, and says that his potatoes grew well until the middle of August, about which time there were cold rains for several days, after which the weather cleared, and there were three nights so cold as nearly to produce frost. The weather then became very warm, and in five or six days black spots appeared on the leaves of the potatoes, and in ten days afterwards the tubers were affected.

He then states, "I am confident this dreadful disease is caused by the state of the atmosphere, and that some powerful agent being deposited on the leaves, checks the progress of the alkali, and causes the decay. I have positive evidence that the disease is not confined to the potato, for the same dews produced the same effect on my tomatoes, cabbages and rutabagas. The rutabagas all rotted, I have not harvested one of them. The effect of the dew was most apparent on the tomatoes; those parts where the dew collected heaviest, being soonest turned black."

Mr. J. Clapperton, an eminent agriculturist thus describes the progress of the rot in Ireland in 1854. In a letter to the "Leinster Express," an Irish Provincial paper, he states that "during the last eight days the atmosphere has been highly charged with electricity; thunder showers are always sudden, partial and heavy, and under present circumstances we have not seen anything remarkable in this particular, but the effect has been of more hurtful tendency than we have experienced for many years. Within the last six days, the potato disease has been very decided in its action; it is extending from the leaves to the tubers but not with alarming rapidity, as the leaves are always smitten or seriously disorganized, for several weeks before the tubers are affected." This is the testimony of one of the most scientific farmers in Ireland.

The potato crop has been seriously damaged by the rot, in the season that has just passed. The potatoes in the neighborhood of Quebec, were perfectly safe and free from all symptoms of disease, until they were visited by a thunder storm; after which they immediately became black, and rotted away. In every part of Europe and America, the potato blight of 1845, was heralded by thunder and lightning.

After all this overwhelming testimony, produced from some of the most enlightened nations of the world—it will be absurd for any indi-

vidual to assert that the blight is not atmospheric; and it is a fact that it is caused by nitric acid, which is conveyed by rain and dews.

I will now proceed to the second part of my undertaking, and describe the best method of preventing the rot, by such an alteration in the cultivation and management of the potato as will suit the emergency.

The potato blight appeared nearly at the same time in many different parts of the world; it visited Europe and Asia, and some parts of America, in 1845. Potatoes raised from seedlings, did not escape any more than those raised from tubers. The produce of wild potatoes which had been imported from the mountains of South America, did not escape better than those kinds which had been acclimated in Europe, and North America. In fact, everything connected with the disease proves that it is atmospheric, and our observation enables us to perceive that it generally visits the crop in the latter end of July, or the beginning of August, and the latter circumstance enables us to guard against it, observing the following rules:

First—Select a well drained field for the intended crop, let it be fresh from grass if possible, as new land is always best for raising potatoes; take care that rain water cannot lodge in any part of it.

Second—Do not allow the tubers to sprout in the roothouse, pit or cellar, before planting; get them into the earth before their strength is exhausted by fruitless vegetation.

Third—Be careful in selecting seed; some kinds are hardy, and resist the attacks of blight; plant these in preference to all others. If sets or cut seed are used, they should be prepared before the tubers have sprouted, for if cut when in a growing state, the sets will bleed, that is, loose much of their essential juice.

Fourth—Do not plant potatoes in low, damp situations, for such localities are subject to fogs which sometimes contain the elements of blight and mildew, and are also liable to receive and retain large quantities of rain water, which at certain times contains ingredients hurtful to the plants.

Fifth—Take great care in the management of the manure intended for the crop; let it be carefully heaped in the fall or winter, and the liquid manure carefully preserved. For the growth of potatoes manure should be well rotted, and reduced nearly to a state of compost; by this means the roots of the potatoes will at once receive nourishment, and

the plants will get a vigorous start, and flourish even in a season of drought.

Sixth—Having preserved seed of the most approved and vigorous kinds—plant as early as possible, always selecting a suitable time for so doing; do not plow or plant in wet weather. If you wish to raise an abundant crop of potatoes, you must drain the land, plow it exceedingly deep and well, and pulverize it completely; by these means the roots will have liberty to spread in quest of food, and they will strike deep and draw up nourishment from the soil.

Seventh—Mould or earth the potatoes in good time, and in a proper manner; if you heap too much clay about the stems, you will bury the tubers *too deep*, and too far away from the influence of air and heat. If you earth them at too late a season, the stems will continue to grow, and the tubers will not ripen in time, and they will be liable to be destroyed by the rot. Bear in mind that potatoes of superior quality are always produced near the surface, and that too much moulding is of more injury than service.

Eighth—See that the drills or hills are properly shaped, that they throw off rain, and provide suitable drains to carry it off. Rain water in seasons of blight, should be prevented from entering the tops of the drills or hills; stagnant water should be removed.

Ninth—Do not plant potatoes in close, well sheltered situations, as they are liable to be blighted in such places. Damp, clayey soils, are unsuited to the growth of this crop; potatoes always succeed best in warm sandy land, provided the soil is rich enough to produce them.

Tenth—The most important point of all, is to have the crop ripe before the season of blight arrives. It is well known that early crops escape this malady better than late; when the stems and tubers are ripe before blight appears, they are beyond the reach of the malady. The rot is a natural consequence of the blight, for when the leaves and stems of plants are killed by poison of any kind, the decay and death of the root soon follows.

Early ripening kinds should be selected for sowing, and got into the ground as soon as possible; well rotted manure should be used, and early mouldings applied, that the plants may be brought to maturity at an early season; and as soon as the leaves and stems are perfectly withered, the tubers should be taken up and removed from the influence of

rain and frost. Some persons advise to leave the tubers in the field as long as possible, but this is a dangerous expedient.

The storing or wintering of the potato is a matter of so much importance, that I will make a few remarks on it.

Many thousand bushels of potatoes are lost annually by negligence, or want of skill in securing them for the winter; a little extra care and attention would have saved all these from destruction. If we possess a good root house or cellar, the potatoes may be easily secured from the effects of frost or rain; yet we cannot be too particular in stopping up every chink and crevice through which frost might enter, and destroy the tubers; the potatoes should be mixed with clay or sand, and well covered with hay or straw. If we are obliged to pit them, we should select a good site for so doing; the pit should be made in a new, dry soil, and if possible in a sheltered situation, but not under the drip of trees. A little protection from the west wind will have a very good effect in warding off the attacks of frost. In pitting potatoes, a portion of the soil should be permitted to remain among them, in order to fill up the intervals between the tubers, and prevent the entrance of frost, and also to keep the tubers at a proper degree of temperature. A covering of muck or new soil, should be laid on over the pit, before the hay or straw covering is applied; this will prevent the entrance of frost even should it penetrate through the outer coverings of the pit; I have proved this to be an excellent plan. My method of pitting potatoes is this: I select a favorable site, well sheltered by some building, shrubs, or fence; I place the potatoes on the surface, and having mixed soil or sand with them, I form them into a roof-shaped pile, as sharp as possible; I then put on a covering of dry muck, or new soil, and slap it tight with the spade; over this I put a heavy covering of straw or hay, and then the main covering of clay or muck; a coat of thatch should crown all, in order to throw of rain, guard against frost, and "make assurance doubly sure;" precaution such as this, will most certainly preserve the tubers from the severest frost, and the farmer will be amply repaid for his trouble.

When storing potatoes for the winter, the best and most approved kinds should be selected for seed; every damaged or misshaped tuber should be rejected, and none but the choicest, medium-sized potatoes,

laid by for planting; these should be mixed with soil, and kept separate from the main crop until they are required.

I prefer planting potatoes in drills to every other mode of cultivation, as by this means the plants are placed at equal distances, and have each an equal share of earth and air.

The vitality of the potato has been very much injured by carelessness in storing, and errors in its cultivation. The following is a summary of the principal causes of its failure:

1. Late planting.

2. Having the sets too long cut before planting.

3. Permitting the sets to remain too long uncovered in the drills or hills, exposed to the sun.

4. Planting sets of unhealthy tubers, or of delicate kinds, which are unable to withstand the blight.

5. Planting the same kind of seed too frequently in the same soil; a frequent change being necessary.

6. Using badly prepared manure—many farmers err in this particular; dry, unrotted manure, is sometimes of more injury than service; green manure frequently destroys the sets by fermenting in the ground. Old neglected dung is generally worthless, as it has lost all its valuable properties, and has become a nursery for weeds and wireworms.

7. Having the drills too long made before planting, and the manure left too long exposed to the sun. In this case the soil and manure become *too dry*, and are deprived of that degree of moisture which is necessary to support vegetation.

8. Want of care in weeding and in earthing the crop.

9. Putting the tubers too early in very large quantities, into pits or cellars, where they are liable to become heated, and thus to receive material injury.

10. Want of care in harvesting and in wintering the potatoes. In the first case they receive injury before they are taken out of the field; in the latter, after they have been stored for the winter.

The numerous theories and pretended antidotes which for such a length of time have distracted the farmer, should be rejected, and entire reliance placed on the skillful management and cultivation of the crop. "The rot is caused by the ravages of an insect," says one. "Not at all," says another; "it is plainly a parasitical fungus. I saw it with a

powerful microscope." "You are both wrong," remarks a third: "it is caused by over cultivation; procure seed from South America, or raise it from the berry." "I did both," says a fourth, "and found no relief from the terrible rot." "It is contagious," says the fifth; "pull up the stalks and burn them immediately." "Not so," replied a sixth; "I planted damaged potatoes, and their produce were sound and healthy." "Plant in the fall," writes No. 8. "It is a sovereign remedy." "I did so," replies No. 9, "and I do not approve of the plan. My fall planted potatoes were much damaged by the rot. Many of the sets were destroyed by rain and frost, and those which escaped did not produce a good crop, as the ground became too hard around them, from lying so long untilled." In this State, that plan is altogether impracticable on account of the intense frost.

In the midst of all these conflicting opinions, the farmer should learn to place reliance on his own judgment and observation, and he will soon discover:

That the disease is atmospheric.

That it generally appears after lightning.

That it is conveyed to the plants by dew and rain, and sometimes removed by fine weather.

That dry sandy soils sometimes produce potatoes free from the rot, whilst those raised in damp clayey land, are destroyed by that malady.

That some varieties of the potato escape, whilst others are destroyed.

That the blight is not confined to the potato, but appears on many kinds of plants and vegetables.

That early planting, careful manuring, moulding and weeding assist in bringing a crop to perfection early in the season, before the rot or blight appears, and that a great deal depends on draining the land properly, and forming the drills or hills in such a manner that rain water cannot remain around the roots.

Doctor G. H. Adams, of Berkley street, London, has ascertained the effect of nitric acid on the potato plant. His experiments were made with diluted nitric acid, in the proportion of one portion of the acid to twelve of water. He found that the potato leaf, on account of its peculiar spongy and unprotected nature, readily imbibed the liquid, whilst the leaves of other plants, more especially those more completely encased in their peculiar coating of silicious or glassy varnish, completely

repelled the liquid. The injury in the former case being the destruction of the functions of the leaf, in the other only corrosive spots, where the liquid by repulsion had formed itself into drops on the different parts of the leaf. He found that the injury produced by nitric acid on the generality of plants was only local, whilst upon the potato plant its effect was immediate and fatal, the whole plant becoming disorganized and its vitality extinct in a few hours.

In order to support my opinion, and prove the disease to be atmospheric, I have now produced the opinions of scientific and practical men, from England, Ireland, Scotland, France, Holland and America; I think this point is satisfactorily proved.

I have also proved that the disease is conveyed by means of rain and dew. Having firmly established these two points, I have proceeded to another important part of the question, and prove by the testimony of several distinguished chemists, that rainwater during thunder storms, contains a large portion of nitric acid, an ingredient which is sometimes destructive to vegetation. I have proved that the disease generally appears after thunder storms, and that it is wonderfully increased by rain. Thus having explained the cause of the rot, I have proceeded to describe the best means of preventing it. I have given plans which are clear, plain and practicable, such as can be tried by every farmer without trouble or expense.

It may be asked why the rot was unknown in the world until 1845? I have produced the evidence of M. Boussingalt, to prove that it has existed for many years in Central America. It should be borne in mind that blights of every kind are produced by certain conditions of the gasses which compose the atmosphere, and consequently the time of their appearance is regulated by no fixed law.

The British Government paid $97,000 for the expenses of a commission to inquire into the nature of the potato disease, and to provide a remedy. Time has cleared away the mystery which clouded the subject, and I hesitate not to assert that the practical farmer will find more useful information in this essay, than has been elicited by the British Government, at a cost of $97,000.

In making this statement, I do not at all wish to diminish the fame of Dr. Lindley, Sir Robert Kane and Professor Playfair, the three very distinguished gentlemen, who composed the British commission; but

their failure in discovering the cause of the disease, and the total inefficacy of the remedies they proposed, sufficiently prove, that men may be justly celebrated as agricultural chemists and botanists, yet from want of experience in practical agriculture, may be unable to instruct the farmer in his profession.

Some persons have remarked that if the disease were atmospheric, it is likely that some change in the atmosphere would have been noticed by meteorologists. In answer to this objection I will say, that epidemic diseases have at certain times almost annihilated the human race, yet their approach was never foretold by the *savans* of the day. Epizootic distempers have at times made sad havoc among the domestic animals, yet no person has ever announced their advent, nor detected any change in the atmosphere during their prevalence.

To those who say that "Nature's laws are unchangeable," I will say that the laws of Nature, like all laws, divine and human, are subject to infraction; if such were not the case, we would have none of these terrible phenomena, which sometimes convulse the earth, the ocean, and the sky.

Some persons who are better skilled in raising objections, than in cultivating potatoes say, "had we not thunder and lightning since the creation of the world, and how has the potato escaped until 1845? To these I reply that we have had air and water since the creation, and are they not indispensable to animal life? Yet at certain times, these acknowledged blessings have been the means of conveying the most deadly plagues, to destroy man and beast.

The appearance of the rot in hot houses, from which places rain and dews are excluded, was thought to be a proof that the disease did not originate in the atmosphere; but a little reflection will enable us to perceive that this circumstance affords no proof against our opinion. The atmosphere pervades all space, and particles of the poisonous acid can easily enter through the roofs of hothouses. It is also a fact that the plants in hothouses are generally watered daily, with rain water, and this latter fact is sufficient to explain the mystery.

The potato rot has destroyed more human beings than the present war, with all its terrible engines of destruction. He who discovers the cause of the disease, and provides a remedy, confers a benefit on agriculture which is not easily estimated.

I do not advocate the adoption of the potato as the chief article of human food; I wish to see it cultivated as a useful and nutritious vegetable—its good qualities are appreciated in all parts of the world.

In advocating early planting, as an important point of defence against the attacks of the rot, I don't wish to be understood as advising the farmer to plant potatoes so early that the potatoes may be in danger of being destroyed by frost. The chief reasons for planting early, are that by this means the tubers are got into the soil before they have been injured by sprouting, and the plants will have time enough to grow and come to perfection, before that time arrives when blight generally appears. As to the correct time for planting potatoes, the farmer must be guided by his own experience and observation.

I have had much experience in the cultivation of the potato, having been engaged extensively in farming for more than twenty-five years; my potato crop suffered in common with all others, in the first years of the rot; but when by close observation in the field, I was enabled to discover the nature of that disease; I took steps to counteract the evil, and succeeded in raising crops almost free from every symptom of disease.

Some scientific men were of opinion that the potato was about to be destroyed altogether, and that it was useless to contend against the rot. The experience of the two last years proves this opinion to be incorrect, for the rot has almost disappeared, and there is every likelihood that the potato will be restored to its place among cultivated crops. To assist in bringing about an end so desirable, this essay has been written. I respectfully submit it to the consideration of practical men, and if they award to it their approbation, I shall treat with indifference the criticisms of those who never raised a crop of potatoes, and are of course ignorant of the subject on which they presume to render judgment.

History has recorded that the authors of some of the most useful discoveries and inventions have at first been treated with neglect and indifference, and sometimes have been punished instead of being rewarded. When Jacquard, the inventor of the wonderful loom which bears his name, was arrested and carried to Paris, Carnot rudely asked him in the presence of Napoleon, "Are you the fellow who pretends to do that impossibility, tie a knot on a stretched string?" His compatriots

of Lyons, the difficulty being surmounted, broke his looms in 1806, and raised a statue to his memory in 1840.

The Liverpool and Manchester Railway was at first opposed with every species of ridicule and invective. One member of Parliament declared his opinion, that a railway could never enter into successful competition with a canal, for even with the best locomotive engine the speed *could never exceed three and a half miles per hour.*

Traveling by stage coach, I crossed the Liverpool and Manchester Railway on the day that the engine was making its trial trip, and before a passenger had traveled on that line. The laborers were running from the fields to gaze on the locomotive, and the "happy homes of England" were pouring out their inmates to see the wonderful novelty. *This was the beginning of a system which has changed the face of the world.* See what steam navigation and railways have done for America. Look at Detroit, the commercial capital of Michigan, rising in wealth and importance, with lines of steamboats which reach to Quebec on one side, and the extremity of Lake Superior on the other, whilst her railways terminate with the Mississippi and the Atlantic, and will soon reach the Gulf of St. Lawrence. Yet the inventors of steamboats and railways had to struggle against trials and discouragements; they had to bear the pangs of hope deferred, and "the spurns which patient merit from the unworthy takes." They were scoffed at as visionary enthusiasts, and brainless people shook their empty heads and cried out "theory," "theory;" but they persevered, and now the world resounds with their fame, and continents are intersected, and oceans bridged across by their inventions.

The cause of the potato rot, and the means of preventing it, are questions which have agitated the agricultural world for the last ten years. It is time to set them at rest. I do not pretend to learning or knowledge, but I can say with certainty that the potato disease is atmospheric—that it is conveyed with rain and dews—that it generally appears after lightning, and that there are very strong reasons for believing that the destructive ingredient which occasions it *is nitric acid.*

I can also state that I have raised excellent crops of potatoes during the prevalence of the rot, by observing the rules laid down in this essay.

The Executive Committee of the State Agricultural Society have awarded me a vote of thanks for the foregoing essay, and requested me to allow them to publish it in their Transactions. I will state that I esteem it a high honor to obtain the approbation of such men as the members of the committee. I feel pleasure in complying with their request, and trust that for the benefit of agriculture they will compare the opinions and facts stated in this essay with their own observations, and lay the result of their investigations before the public.

ADDRESS

DELIVERED BEFORE THE MICHIGAN STATE AGRICULTURAL SOCIETY, AT THE 7TH ANNUAL FAIR, HELD AT DETROIT, OCTOBER 2D, 3D, 4TH AND 5TH, 1855.

BY HON. JACOB BROOM, OF PHILADELPHIA, PA.

Gentlemen of the Michigan State Agricultural Society:

Could one from an eminence view the wide extended territory which forms our nation, and at a glance take in the various industrial pursuits of this free and happy people, witnessing at the same time the grandeur of nature in her prairies, fields and valleys, irrigated by magnificent lakes and numerous rivers; and the happy results of the arts and sciences, the interminable highways and "iron tracks" from the centre to the sea-board: and casting his eye to the east or to the west, behold the vast expanse of waters on either side, studded with the white canvass of freighted vessels bearing abroad the products of this nation, his heart would naturally swell in exhultation and pride, while boundless thanks to the great Author of all would irresistibly break through the barriers of indifference, and wed him in closest devotion to the best interests of his native land or adopted home.

We have reason, indeed, to congratulate ourselves that within the limits of our country are contained all the elements of *real* independence. Of necessity no freighted vessel need steer its course toward our shores, nor any nation pour in upon us the products of the labor of its people to the disparagement of that of our own. Industry here cannot fail to produce all that we want, and plenty to spare to other nations less favored; and to such end should our individual exertions and the legislation of the land be earnestly directed.

Under the happy influences of our republican institutions, every inducement to industry exists. No church power can exact the tithe of our proceeds, nor extort through the operation of law, the black-mail. Here republicanism dignifies labor, and under the American doctrine of "equal rights," admits not of the incubus of a pampered aristocracy. Here no tyranical oppression of government can be permitted to retard or interfere with the merciful sentence of God upon the first transgression, when Adam was "sent forth from the garden of Eden to till the ground,"—"*In the sweat of thy face, shalt thou eat bread:*" and here, as if to a favored people, the best adapted portion of the earth for that purpose, in soil and climate, becomes our inheritance, where "out of the ground made the Lord God to grow every tree that is pleasant to the sight and good for food:" and here, truly, having every facility, is man induced to take the highest degree of pleasure, and derive the greatest extent of benefit, comfort and happiness, which he can experience on earth, in fulfilling the Divine sentence.

Man is peculiarly adapted to labor, and is gifted with qualities and capacities which enable him to command the fructuous properties of the soil, and to apply them to the various uses necessary to his existence, comfort and happiness—the wind and the wave form no obstacle to his locomotion—nor does the thunder of the summer cloud hush, nor distance forbid the expression of his thought, or the communication of his ideas. His capacity for labor enables him to cause the subtle lightning to leap at his command, instinct with intelligence, and the restless waters, in their most impetuous fury, safely to transport the burden of his treasures. Without labor, his volition would be in vain—the earth itself would almost refuse him subsistence—his thoughts and ideas would be confined to his own breast and the ear of his neighbor—his position on earth would be stationary, and neither wind nor wave, nor art nor science could contribute much to his necessities or happiness. Labor is necessary, and so long as man shall regard obedience to God as the golden rule of human existence, it must be also esteemed honorable, for God himself hath commanded it. Not only so, the experience of every day exemplifies that it is also promotive of health and contentment, the *summum bonum* of earthly attainments.

But, unfortunately, the standard, or representative of labor, established to regulate and equalize an interchange, has been productive of serious

evil to the social condition of mankind, by being carried too far beyond the design of its original introduction. It has too largely interfered with the republican character of our own people, and even taught some to affect to despise labor, and to consider the "sweat of the face" as servile and ignominious; so that, while perfumed with the aromatic essences of oriental climes, such would even disdain to sit beside the uncorrupted tiller of the soil, and partake with him in the production of his own labor. So, also, with the mere lady of fashion, who in foreign silks and expensive cashmeres will idolize a piano and spurn a spinning-wheel, worship a dunce, and affect to despise the practical common sense of the husbandman's wife or daughters. I speak not in disparagement of, nor would I be understood as casting the slightest reflection upon members of well bred society, who take an interest in the affairs of life, and do not wrap themselves in their own conceit, while in possession of that which cost them no "sweat of the face," and spurn the condition of the rest of mankind; but, living in a republican nation, reared under the influences of republican institutions, and deeply venerating the memory of their republican founders, I feel naturally inclined on suitable occasions, to strike at those follies which, like noxious weeds in your gardens, in their effect upon valuable plants, are calculated to weaken or impair the legitimate fruit of genuine republicanism.

Much is to be done to preserve the republican character of our people, and to prevent to too great an extent such classification as would conflict with the original feature of the institutions of our free society. The policy of our people should be to preserve American traits against the insidious encroachments of foreign manners and customs, and to perpetuate the pure simplicity of the revolutionary spirits of 1776. The old matron of that day, over her cup of tea, could be to her neighbor at the same time the lady and the republican woman, and exhibit an ease, cheerfulness and dignity of manner which would equally adorn the American ladies of the present age, and at the same time add brilliancy to the beauty of republicanism. With our republican fathers no affectation in their intercourse with each other could have induced them haughtily to extend the kid-covered tips of one hand, while with the other the moustache, if any, would be arranged, when, probably it needed no arrangement; and to hasten the termination of an interview

by gestures of haughty impatience, or the exhibition of shame at being seen in converse with a son of industry.

But, in order to realize the actual intention and true beauty of republican life, attention should be given towards intellectually equalizing the society of free government, and elevating our whole people from follies on the one hand and ignorance on the other. Education is the medium through which to cultivate, as nearly as possible, such equality; and although it cannot be expected that those who devote the most of their time to labor, and in retirement require relaxation and rest, can ever equal in learning those whose time is mostly spent in the improvement of the intellect, yet the general mind of the people, disciplined and stored so far as practicable, would operate in the two-fold manner of rendering individual intercourse profitable and interesting, and giving, in the aggregate, a character to our nation for intelligence and virtue, in accordance with the original design of our institutions.

The human mind is wonderfully susceptible of cultivation. It requires not merely that books should be kept constantly before it—over the plow and over the anvil, the exercise of memory and thought will strengthen and enlarge it, and render it still more and more keenly susceptible. Man is made after God's own image, and it is but in the accumulation of knowledge and the enlargement of his mind that he may approximate to the Divine likeness.

In forming, then, societies such as yours, for the promotion of the different departments of labor, it would be useful to bestow attention to the improvement of the mind, and incorporate it as a component part of the system. It is not, and should not be, a mere emulation between for instance, the States of Michigan and Ohio, as to which can produce the best and most from an acre, or commit to the best advantage the "*blackest ingratitude*," according to *Petronius Arbiter*, in making the finest coat from the wool of a sheep, and afterwards dining on his carcass. But your aim should be also to advance the character of your country, dignify labor, and secure the greatest degree of happiness to your countrymen. The system of "*prize essays*," among others, is admirably calculated to encourage observation, and to lead to the exercise of thought, as to the best means of advancing the art of agriculture in all its branches, and to habituate man to look beyond the mere culture of the field and the raising of stock to those higher attributes of

his nature which so transcendently distinguish and elevate him beyond a mere physical existence.

The improvement of the mind would also act practically upon the best interests of the science of agriculture, and is indeed, indispensable to it. Each department of labor requires the protection and fostering care of government, and none more so, perhaps, than agriculture and manufacture. They are the foundation of commerce and trade. Fertile fields and active machinery will enrich a people, unless they become impoverished by the arts of speculation through a bloated credit, arising from ficticious capital. Intercourse or commerce then, with other nations should be restrained and regulated by such wholesome laws as would effectually guard the grower and the manufacturer from having thrown back on their hands their produce and manufacture for want of funds in the country to purchase them, or from suffering total loss by credit sales, one or the other of which is too generally the case when the balance of foreign trade is largely against our country. Thus it becomes important that the mind of the farmer should be well informed, and strengthened by education and exercise, that he may be fully qualified by advice or action in our legislative halls, to advance at the same time his own interest and the prosperity of his nation.

Again: American agriculture should supply the demands of other nations, especially with bread-stuffs and cotton, as England has done for many years with her manufacture. For this purpose, treaties with foreign nations should be of such practical character as to secure so desirable an end; and the ambassador charged with that duty, if not of the agricultural class himself, should be aided and prepared by the practical suggestions of those who by experience and reflection are competent. The nature of our soil and climate, the former extensive and abundant, and the latter including nearly every degree of latitude, gives to us the entire ability.

A great obstacle, however, remains to be overcome—an evil which spreads its baleful influences over all industrial classes, and mostly covers with ruin its projectors. The dazzling prospects of speculation attract capital from agricultural and other substantial interests of the country and the people at large, and directs it to individual aspirations for wealth and affluence. This is but seldom realized; and thus men crowd the large cities of our seaboard, pining away in health under

blasted hopes and withered prospects, and with destitute families on their hands, whose health and fortune would have been alike promoted by frugality and honest labor in turning out the fullness of the earth.

This evil, as well as others, may in a great measure be remedied by your exertions and the action of government in upholding and advancing the art of agriculture, until it shall offer inducements for the investment of capital, and thereby attract from our large cities thousands of men who subsist almost without employment. It would also have a salutary effect in another point of view. The old world is constantly pouring upon our shores its starving myriads, who are accumulating in our thriving localities without the means of subsistence, and for whom there is not a sufficiency of labor, who, under an extensive and prosperous system of agriculture and manufacture, might find employment and in a common industry the better learn to assimilate with the people of America and appreciate the value of the institutions of freedom.

Our vast country contains thousands and millions of acres of arable land as yet untouched by the implements of agriculture, seeming almost to the starving dependents upon our large cities, as the tender mother, who, by displaying her bosom, invited and attracted her child from the brink of destruction to the fountain of nourishment and safety. For one, I can never cease to regret the diversion of my own inclination in youth, from the pursuit of agriculture to the mental drudgery of a laborious profession. The driving of oxen, it seems to me, would have been more agreeable than the effort to drive obstinate juries and learned judges, and the raising of wool preferable to the fleecing of strong clients, and shearing of the feeble.

Such societies as yours, while they excite emulation in agricultural improvements, and awaken a commendable zeal in that particular branch of industry, may be made also subservient in correcting such evils of policy or of society, as might ultimately affect either the interests of the people, or the character or general prosperity of our nation. An ardent love of country, and a due appreciation of the perfect liberties we are permitted to enjoy, will at all times direct the attention of the patriot to the welfare and character of his nation, and teach him, while pursuing his individual interests, to advance at the same time its prosperity and glory. The character of his country is naturally dear to his heart. Its prosperity is his pride. He is in a measure identified with

its destiny. Impoverished, it must beggar him—prosperous, it will build him up in contentment and true happiness. Hence his exertions lie in a wider field than mere self-interest. He may labor and produce—but his neighbor, from inactivity or idleness, has nothing to exchange with him for his products. He must influence that neighbor also to industry, that he may be encouraged in his own; and his encouragement becomes increased in proportion to the extent of surrounding labor. Promote, then, so far as practicable, national industry, and encourage a home market for your products, by fostering and protecting domestic manufactures. Let agriculture lead and sustain the system. Let it set the noble example by advocacy and action, of retrenchment in the use of foreign wares and manufactures, until class after class of industry shall fall in line, catch up the spirit and finally shout their pæans over the complete redemption of our beloved and happy country from dependence on foreign labor.

But in order to be effective in such a design, the co-operation of government is essentially requisite. To this end, but too little attention hitherto has been bestowed. Reason upon the subject, has been too generally overpowered by the zeal of an unwholesome party spirit, and the necessary protection, which should be permanent and unchangeable—except such practical alterations as may be suggested by the test of experience—has been made the subject of party caprice or individual ambition or aggrandizement; and thus, by instability, has offered no encouragement to the investment of the requisite capital.

To this, in a great measure, has been owing the diversion of capital to the field of speculation; an evil to which I have before alluded, and which is destructive of industry, and prejudicial, as well to the wealth and greatness of the nation, as to individual prosperity and happiness. It has, time and again, led to excessive importations, and caused unfavorable balance of trade, thereby generating poverty and distress among the people, and paralyzing the sinews of labor and trade. Such an evil, if permitted to increase, must be also productive of others of a lamentable effect upon the affairs of the nation. Where there is no industry, there must be idleness. Idleness makes men vicious, and losing respect for laws and the rights of others, they become ready for riot and commotion, and even dangerous to the safety of government itself. The history of France attests the truth of this position, especially after her

impolitic treaty of commerce with England in 1786, which led to the ruin of her productive labor, while that of Persia and modern Greece, Egypt and the Turkish provinces present instances of the languishing effect of deficiency in national industry. Indeed, were we to scan the page of our own history, although youthful in our existence as a nation we might find much to condemn in the operation of government on this important branch of political economy, and learn lessons of wisdom and value of inestimable effect upon the future career of our nation.

Commerce, also, to be profitable to the nation and to the merchant, likewise requires that protection should be given by government to national industry. Our colonial history—a history exemplifying the disastrous effect of dependence upon a foreign nation—clearly indicates such necessity. While the colonies were obliged to exchange the raw material for the manufactured article, the mother country derived all the advantages and profits of labor and commerce. It brought no funds to the coffers of the colonists, and consequently kept them in an impoverished condition. This was the policy of England, in order that she might foster and promote the industry of her own immediate people. That very industry sustained her commerce, and gave to it its basis.* The people were incited to industry, and the nation became active, prosperous and great. From that involuntary dependence and slavish contribution to the welfare of Great Britain, the colonists finally emancipated themselves, and declared the ability of the people to preserve themselves independent. Indeed, so earnest was the spirit of entire independence, that the immortal Jefferson, the author of the great Declaration, seeing and fully understanding and appreciating its extent, could not withhold the expression of his concurrence in the wish of Silas Deane "*that there were an ocean of fire between this and the old world;*" while Franklin, too, in answer to taunts in England, when asked what the United States would do for cloths if they went to war with Great Britain, remarked that "*the American people can make their own cloths, or wear their old clothes over again.*"

The true policy of our government from that time to the present, and through all time to come, should have been to foster, strengthen and cherish that same spirit, discountenancing all that was foreign and

*Lord Sheffield, in his observations on American commerce, says, "The only use or advantage of American Colonies or West India Islands, is the monopoly of their consumption, and the carriage of their produce.

promoting all that was national. Whereas, on the contrary, while this country, in the single instance of cotton, possessed a capacity to raise a sufficient supply for the whole world, that of an inferior quality was, at one time in our history, purchased in Bengal, as was also the manufactured article in Hindoostan and England, to the great disparagement of our cotton growers, and of tens of thousands of our own indigent, but capable citizens.

Thus I have endeavored in a concise way, to represent the necessity on the part of agricultural societies to encourage and uphold other branches of industry and commerce, that the producer may the more readily find a certain and profitable market for his produce, agriculture be upheld and promoted, the people become industrious and contented, and the nation wealthy and prosperous.

But mere wealth and prosperity is not all that a nation requires. China and Hindoostan, with all their profitable labor are far from being great in the scale of nations. They want enlightenment. Neither, on the other hand, will enlightenment of itself, render a State great and happy, as exemplified by Greece in its maturity, or Rome in the Augustan age. But enlightenment and industry, hand in hand, will and must elevate a nation to the pinnacle of greatness.

You will pardon me for trespassing on your patience beyond the mere specific requirements of your society. This occasion is to me one of deep interest. I feel that I address my countrymen; men, whose education and pursuits have not and cannot shut out from the mind and the heart a glowing pride in the greatness and glory of their country, and who would even scorn the idea of individual interests separate from and irrespective of the honor and condition of their nation.* Besides which, it may not be entirely unprofitable in your pursuit, to reflect upon the operations of other nations, that you may mark the effect of unwise and mistaken policy in some, and profit by the soundness of it in others. To advance the interests of one's nation, is indeed a primary duty. Nature herself suggests it. As our affections naturally cling to the scenes of our earlier homes, so does our pride attach in maturity to our national domain. The honor of our country grows into an idol. Let that honor be once insulted, and the agriculturist will fly from his plow, the manufacturer abandon his loom, the mechanic

*"I think it is the duty of every good man primarily to respect the welfare of his native country."—Sir Josiah Child, 1680.

his bench, and the professional man his civic labors, and rush together to its standard, in sacrifice of time and blood, to avenge the indignity. Surely, the prosperity and greatness of our nation are no less calculated to awaken a just pride in our hearts, and equally to demand our energies and devotion. In a free government like ours, the character and condition of the nation does but reflect the character and condition of the people; therefore are we concerned morally and patriotically in giving shape and tone to our public affairs—to see that we fall not, under partial or imperfect legislation, to the deplorable condition to which Spain, Portugal, and other countries have been reduced—to guard against distress and embarrassment pervading the nation—and, in short, to see that our nation shall avail itself of all the natural advantages which Heaven has so bountifully bestowed upon it, exceeding by far those of any other nation on earth.

Agriculture cannot stand alone. Its prosperity is intimately connected with, and dependent upon the general prosperity of the nation, and is therefore interested in promoting national industry, and securing a proper division of labor. Portugal, perhaps, with her vines, was possessed of as great advantages in 1703, as the United States now possess for the purposes of agriculture; yet in that year, after a highly prosperous manufacturing career of upwards of twenty years, under an absolute prohibition of the woolen cloths of other nations, their government was induced by the speciousness of Methuen, the English ambassador, to listen to the syren proposition of an abatement of one-third of the duties on their Port Wines admitted into England, while the duty on those of France should remain unchanged: *Provided, Portugal should not exclude British woolen manufactures.* The treaty was made and ratified, under the delusive opinion that Portugal would find an increased and extensive market for her wines, and be able, at the same time, to purchase cloths at a much less price than they had theretofore cost. In theory, it was plausible; but in practice, most ruinous. Its flourishing manufactures were destroyed; the nation became drained of its gold and silver to pay the balance of trade which resulted therefrom, amounting annually to more than four millions of dollars, and poor Portugal, through the superior statesmanship of Methuen, fell from the happiness and prosperity which had before that characterized it, to a hopelessly impoverished condition. Its own people, being without

employment, could not afford to consume its wines; and the loss of the home market was not much more than compensated by gain in the foreign; and thus that nation lost entirely the tested advantages which it had experienced for twenty years *in combining manufacture with agriculture.* England profited vastly; and by way of exemplifying the difference between a nation promoting, and one regardless of domestic industry, I extract from the British Merchant* as follows:

"*Our gain by our Portugal treaty, and our excess of exportations on that account, is a vast increase of the Nation's treasure, the employment and subsistence of great numbers of manufacturing people, an augmentation of our rents, and the saving the landed interest from the charge of maintaining such numbers of poor, as have subsisted themselves by the excess of exportations;*" again:†

"*During the twenty years prohibition, the Portuguese succeeded so well in their woolen manufactures, that we brought thence no gold or silver; but after the taking off that prohibition we brought away so much of their silver, as to leave them very little for their necessary occasions: and then we began to bring away their gold.*"

But, perhaps it may be objected that my remarks savor somewhat of a partizan character, and are therefore improper on such an occasion. But this I deny. Unfortunate for the country is it that party-spirit ever ventured to tamper with the subject as a party measure. It is one of equal concern to men of all parties—deeply affecting the vital interests of the nation and of the whole people—it is an American question —one in favor of enhancing the greatness and prosperity of the American nation by means of the powerful union of American agriculture, American commerce, and American manufacture.

The general prosperity of a nation depends upon, not a concentration of labor upon one or two particular occupations, but a proper diffusion of it through the various branches required by civilized society; and as government can have no higher or more important duty to perform than that which shall secure to the people happiness and contentment, and, at the same time promote the greatness, prosperity, power and wealth of the nation, I must contend that it is highly improper that party spirit should be permitted to distract its operations, and mar the great

*Vol III. Page 251.

†Vol. III, Page 15.

and glorious prospect within our reach, if a sound and judicious national policy be steadily pursued.

England, as a nation, has fully understood and acted upon such policy. Party spirit, in that respect, has never retarded her advancement. She has always with a far seeing policy, taken care of her national industry. So early as 1731 her jealousy was aroused towards even her own people inhabiting these colonies, and she manifested a disposition to suppress the manufacture of paper here, because it was feared that it would prejudice the industrial system which she fostered for her own direct people. She could scarcely, in that jealousy allow the people of the colonies to manufacture woolen and linen cloths for the use of their own families; or even from their hemp and flax to make traces and halters for their horses. Complaints poured in upon the Lords Commissioners of trade and plantations, and upon Parliament, from the British merchants, planters and manufacturers, that "the colonists were carrying on trades and setting up manufactures injurious to them, and to the interest of the parent country," Whereupon, Parliament directed the Board of Trade and Plantations to ascertain and report "with respect to laws made, manufactures set up, or trade carried on in the colonies, detrimental to the trade, navigation, or manufactures of Great Britain."

Here we find the predominant characteristic of the Island Government—one which has marked it to the present day—that of fostering and protecting home industry; and the report of the Board fully confirmed it: for therein they remark, "It were to be wished that some expedient might be fallen upon to direct their thoughts from undertakings of this nature; so much the rather, because these manufactures in process of time, may be carried on in a greater degree, unless an early stop be put to their progress, by employing them in naval stores." *

* * "Moreover, we find that certain trades carried on, and manufactures set up there, are detrimental to the trade, navigation and manufactures of Great Britain;" and they conclude their report with the query, "whether it might not be expedient to give these colonies proper encouragement for turning their industry to such manufactures and products, as might be of service to Great Britain, and more particularly to the production of all kinds of naval stores.*

That very policy on the part of England, finally led to and occasioned

*McPherson's Annals of Commerce, Vol. 3.

the rupture between her government and our revolutionary fathers, as is manifest in our colonial history, and in the causes enumerated in the American Declaration of Independence. Our fathers, in the step taken by them, assumed that Americans were competent to take care of themselves—that if there were any natural advantages in soil and climate here, instead of inuring to the benefit and advantage of a distant people, they of natural right ought to be realized and enjoyed by the inhabitants of the soil. In fostering and protecting then the policy of national industry, we are but carrying out the principles of the revolution—which require not the controlling influence of a party spirit, but the patriotic union of all parties, and the loyalty of all true American spirits to the standard of their real independence.

By the American revolution the people escaped from the bonds of all oppression. Other nations in previous times had also thrown off the shackles which crippled the industry of their people, and they profited consistently by the changes which were effected. Even the people of Great Britain, in feudal times, when wars and imperfect agriculture constituted their principal employment, groaned under their poor and oppressed condition, and total dependency upon their Lords. Greece in her early history, and Macedon and Rome, as well as most of the semi-barbarous States, were alike oppressed and degraded by feudalism. The people having no employment of their own, yielded their services to their Lords in return for maintenance, and followed them in their contests and predatory incursions, setting at defiance the rights of neighbors, as well as all restraints of even crowns and government. From this barbarous condition the people were ultimately rescued by those considerations of policy which resulted in the establishment of manufactures and the fostering of agriculture, and which have also, with the aid of sciences, advanced mankind to the summit of civilization and happiness. Industry and enlightenment have constituted the two powerful levers which have raised the civilized world to what it now is; and while other nations, less favored than our own, have used them to their advantage, and elevated their character to greatness, I can see no reason why we, as a people, should be less regardful of the means at our command to enable us to surpass them all and reach the very highest eminence of national greatness.

In the pursuit of that noble object, you have united yourselves in

association. Voluntary association is capable of performing much. It has accomplished wonderful results, in the various objects which have occupied the attention of mankind in almost all ages of the world. The power of human genius, by its agency, has been cherished and developed: of which,

"The silent pillar, lone and gray,"

the obelisks and catacombs of ancient Egypt, and

"Those temples, palaces, and piles stupendous,
Of which the very ruins are tremendous,"

stand as imperishable monuments. By its operation the prison bars have been broken, and the oppressed have rejoiced in the light of liberty. Its influence is recognized in the advancement of christianity through heathen nations, dispelling the gloom of uncertainty, and lighting up the benighted mind with a knowledge of the word, the love and the glory of the Eternal God.

Perseverance in your object will accomplish all you seek; and not only yourselves, but your State and our Nation, will be advanced by your exertions. The noble tribute of Michigan here laid upon the altar of our independence, in the magnificent display of her industry, energy and enterprize, by which we are this day surrounded, affords an earnest assurance of the devotion of her sons to the general prosperity of the Nation. Go on and prosper. Your example is worthy the emulation of other States, and must undoubtedly exercise a happy influence upon the destiny of our country.

But, in bringing this address to its close, I cannot refrain from urging upon my countrymen, as applicable to the subject, the necessity, at all times, of a close and vigilant devotion to the Union of our States which constitutes us a Nation. Prosperity, if possible without that union, would fail to accomplish the happiness and wellfare of the people. With national pride destroyed, and the dismembered fragments of a once glorious union thrown in conflict upon the same current of free-blood on which the perfect Ark was launched in sublime majesty to float through countless generations, this people would present a condition too deplorable for contemplation. Let us then be friends to that glorious Union; let us guard well the sanctity of its spirit against all encroachments or influences, whether foreign or domestic; and, that we may realize the full and happy results of industry, with the arm of true patriotism sustain and uphold it beyond the conflict of passions, and the malevolence or designs of its foes.

EXECUTIVE MEETING.

ANNUAL MEETING OF THE EXECUTIVE COMMITTEE, HELD AT THE OFFICE OF THE SOCIETY IN DETROIT, DEC. 17TH, 1855.

MONDAY, DEC. 17, 8 o'clock P. M.

There not being a quorum present, adjourned to the 18th.

TUESDAY, DEC. 18.

The committee convened at 10 o'clock A. M.

The committee was called to order by the President, M. Shoemaker.

Present, F. W. Backus, Detroit; J. B. Crippen, Coldwater; Calvin A. Green, Troy; E. G. Morton, Monroe; John Miller, Tecumseh; A. Y. Moore, Schoolcraft; Horace Welch, Ypsilanti; W. S. H. Welton, Grand Rapids; J. K. Kinman, Jonesville; A. N. Hart, Lapeer.

The proceedings of former meetings were read by the Secretary and approved.

The Secretary read the following

ANNUAL REPORT:

To the Executive Committee of the Michigan State Ag. Society:

GENTS—At this, your Annual Meeting, it is customary for you to review somewhat the proceedings of the Society during the past year, as well as to decide upon the course to be pursued the ensuing year. I therefore beg to make the following report:

At the last Annual Meeting of the committee, a motion was made that the Chair appoint a committee to draft a petition to the Legislature, praying that body to appropriate a sum of money to aid in supporting the Society for the two ensuing years; and also to draft a petition praying the Legislature to appropriate a sum of money for the establishment of a State Agricultural School and an Experimental Farm.

The Chair appointed as such committee, Messrs. Gage, Starkweather and Bartlett.

In accordance with the requirements of this resolution, the committee reported petitions as recorded in the reports of that meeting.

The Legislature answered these petitions by the passage of an act appropriating for the benefit of the society, the sum of two thousand dollars a year, for the years 1855 and 1856. They also passed an act for the establishment of a State Agricultural School.

The committee, on motion of Mr. Bayley, adopted the following:

Resolved, That the Secretary be, and he is hereby directed to request Mr. E. M. Crippen to return to the Treasurer of this Society, the amount received by him as premiums awarded at the last Fair, on Devon cattle in competition with foreign Devon cattle. There were no foreign Devon cattle on the ground to compete with, therefore those premiums were awarded in violation of a rule of the Society.

As required by this resolution, I opened a correspondence with Mr. Crippen; a copy of said correspondence I have on file, and which I herewith submit.

Mr. Jenny, whose cattle were said to have been on the ground, and in competition with Mr. Crippen's, states that his cattle were not on the ground, and of course did not compete for the premiums.

I have no knowledge of the money having been returned to the treasurer, but Mr. Crippen has said to me that he was satisfied the awards were incorrectly made.

The Executive Committee, in pursuance of the duties involving upon them by the provisions of the act for the establishment of a State Agricultural School, advertised for proposals for lands for a site and location for said School, and on the 12th day of June, the committee convened at Lansing to consider the proposals offered, and select a location. For a full report of the proceedings, I would refer you to the Society's Transactions, Vol. 6, page 404.

The title to the land having been examined by the Attorney General and found to be correct and unencumbered, and the location being approved by the Board of Education, it was duly conveyed to the State, and paid for from the Agricultural School Fund. By the terms of the act, the School or College is now under the direction of the State Board of Education; should you desire it, I will, directly, state what further proceedings have been had relative to the school.

But one farm was entered during the season, to compete for the premiums on farms. In view of the expenses necessary to be incurred in viewing farms, and the absence of the members of the committee from their own farms for several days in June, and there being but one entry, the Executive Committee, while at Lansing, decided not to examine any farms, unless several others should be entered; consequently no awards have been made on farms during the year.

The Financial Committee, appointed at your last annual meeting, not having time during the meeting to examine the Treasurer's report, requested one of their number to take charge of the report and accompanying vouchers and papers, and examine and report thereon at an early day. A portion of the papers have been returned to me, but no report has yet been received.

At the close of the sixth Annual Fair, a resolution was adopted by the Executive Committee, that the lumber belonging to the Society be sold at auction or otherwise, under the direction of Jonas H. Titus, and that he report to the Treasurer.

The lumber cost the Society about two thousand dollars, including posts, rails, &c.

Mr. Titus deposited with the Treasurer $612 20, received from the sale of lumber. The loss to the Society by this sale was therefore about fourteen hundred dollars. Just previous to the last annual meeting of the Executive Committee, I received from Mr. Titus a statement which was laid before that meeting. The matter was referred to the business committee, with instructions to confer with Mr. Titus and effect a settlement. The chairman of that committee informs me that he has spoken to Mr. Titus several times, relative to the subject, but no settlement has yet been had.

This matter appears to require the further action of this committee.

Before making appropriations for the ensuing year, I would state to you, that although the Society has steadily increased in interest and resources, yet the expenditures have increased in greater proportion. If you examine the premium list as made out the last year, I think you will find it to fall not very far short of $7000 00. It is true the awards are not made to the extent of the list offered, and perhaps the awards cannot with safety be cut down below the amount awarded this year, and perhaps it would not be good policy to reduce the amount offered.

How the receipts can be increased, or the expenditures diminished, or both, is a subject for your careful consideration

The amount of cash awards this year, to the present time, without including any awards you may be called on to make at your present session, for field crops and essays, is $3,330 50

52 silver medals, actual cost when engraved and ready for delivery is from $4 50 to $5 00 each. At $4 50 the 52 medals would amount to $234 00, but by a rule adopted last year, you say to each of the persons to whom these medals are awarded, they can if they wish take a set of silver spoons worth six dollars, instead of the medal. Sixteen have already asked for spoons, and 14 of these have received spoons. All the others may yet call for spoons, for there is no limit to the time; therefore, in stating the amount of awards, the medals should be estimated at $6 00 each; at this price they would amount to 312 00

Eleven butter knives at $3 00, ... 33 00

Amount in books, say 50 00

Diplomas 30 00

Total, ... $3,755 50

Of this amount there has been paid in cash,	$1,200 00	
Spoons, 14 sets at $6 00,	84 00	
Books, say	40 00	
Diplomas,	30 00	
		1,354 00
		$2,401 50
One medal paid,		4 50
Leaving unpaid at this date the sum of		$2,397 00

Including silver ware, provided my calculations are correct.

The indebtedness of the Society for expenses incurred the last year, aside from this amount is very small. But there were 59 silver medals awarded last year, (1854;) 39 are yet due, and have to be purchased. Some to whom medals were awarded last year, preferred to have silver spoons instead, and I have made the exchange, es-

timating the medals at $4 50. The 39 medals yet to be purchased at $4 50 each, will amount to..... 175 50

Making the amount now due for premiums,..... $2,572 50

As I have not the Treasurer's report, I cannot say what portion of this amount is now in the treasury, but I presume the treasury is nearly empty. Not in consequence of the drafts upon it to meet the demands of 1855, but the account was overdrawn the previous year; the Society was in arrears, of course those outstanding demands had to be met, and had I the canceled checks that were placed in the hands of a member of the committee last year, I could give you a precise statement respecting this indebtedness, but they not having been returned, I must refer you to the report of the Treasurer for this information.

In order to meet the amount the Society may now be in arrears, I would advise that a loan be made for one year, and that a careful revision of the premium list be made. It may be reduced somewhat and yet give perfect satisfaction for one or two years at least, or until the Society is out of debt.

In addition to the foregoing, the following business will come before you, viz:

By reference to the memorandum annexed, it will be seen that some errors have occurred in awarding premiums at the last Fair, also some discretionary premiums were recommended, and the several amounts not stated.

Should any statements of field crops be presented, you are, by the terms of the premium list, to decide upon their merits.

The following essays have been presented for your consideration:

No. 1. Essay on Thorough Draining, by Edward Mason, of Detroit.

No. 2. Essay on the Cultivation and Management of Wheat, by the same.

No. 3. Essay on Manures and their Application, by the same.

No. 4. Essay on Fruit and Shade Trees, by the same.

No. 5. Essay on The Potato Rot, by J. N. Chandler, Adrian.

No. 6. Essay on the Cultivation of Wheat, by J. N. Chandler, of Adrian.

It is for this committee to judge of the merits of these essays.

At the last annual meeting of the Society, the following amendment

was made to the Constitution, viz: "The Executive Committee at their next annual meeting shall proceed to elect one-half of their members by ballot, to hold for two years, and the other six shall serve only for one year, and at the next annual meeting of the Society, and annually thereafter, six members of the Executive Committee shall be elected to hold for two years."

In accordance with this amendment, you will elect six of your number to hold for two years.

You will want to decide upon the time and place for holding the 8th Annual Fair; also the amount you will appropriate for the payment of premiums. In order to facilitate business, it is the custom of the committee to appoint sub-committees as follows:

Committee on Finance;

Committee on Rules and Regulations;

Committee on Premium List;

Committee on Field Crops;

Committee on Farms;

Committee on Awards to County Societies;

Committee on Essays.

Also, a Business Committee to serve for the year.

Perhaps in addition to the above, it would be well for the Committee to give some general, if not precise, directions relative to fitting up the Fair Grounds, the payment of premiums, &c.

All of which is respectfully submitted.

J. C. HOLMES,
Secretary.

On motion, the report of the Secretary was accepted and adopted.

The President made the following appointments of Committees:

Premium List—Messrs. Morton, Welch, Crippen.

Rules and Regulations—Messrs. Moore, Hart, Welton.

On Finance—Messrs. Backus, Hart, Miller.

Field Crops—Messrs. Green, Moore, Kinman.

On Farms—Messrs. Welch, Green, Moore.

Awards to Counties—Messrs. Welton, Crippen, Morton.

Essays—Messrs. Moore, Gage, Holmes.

On motion of Mr. Crippen,

Resolved, That Doct. H. Goadby be requested to give a lecture be-

fore the committee this (Tuesday) evening, at the Society's rooms, and that the Secretary be requested to corresponding with Doct. Goadby in relation thereto.

At 12 o'clock, M., the committee adjourned to 2 o'clock P. M.

At 2 o'clock P. M. the committee met, and the sub-committees commenced work in their several departments.

At 5 o'clock P. M. the committee adjourned to half-past 7 P. M.

At half-past 7 P. M. the committee met to hear a lecture from Doct. H. Goadby, upon vegetable structure, illustrated by Diagrams.

At 9 o'clock P. M. the committee adjourned to to-morrow morning at 9 o'clock.

WEDNESDAY, DEC. 19.

The committee met at 9 o'clock A. M., the President in the Chair.

The committee on Finance submitted a report, which was, on motion of Mr. Moore, referred back to the committee with instructions to make out a report that shall embrace a full statement of the amount of funds disbursed for different purposes, and the present financial condition of the Society.

At 12 M. the committee adjourned to 2 P. M.

At 2 o'clock P. M. the committee met.

The committee on Premium List submitted their report, which was accepted and the committee discharged.

On motion,

Resolved, That the report be taken up and acted upon by sections.

Whereupon the list of premiums as reported was taken up, and after some progress being made, it was, on motion of Mr. Backus, laid on the table.

The committee on Finance submitted their report, which was accepted, the committee discharged, and on motion, the report was laid on the table.

The Premium List was again taken up, and farther action had thereon, during which, at half-past 5 o'clock P. M. the committee adjourned to 7 P. M.

At half-past 7 P. M. the committee met and listened to a very interesting lecture from Doct. H. Goadby, upon the structure of plants, illustrated by the use of the microscope.

At the close of the lecture,

On motion of Mr. Crippen,

The following resolution was adopted:

Resolved, That the thanks of the committee be tendered to Dr. Goadby, for the two very interesting and instructive lectures he has delivered us, and to which we have listened with much pleasure and satisfaction.

Adjourned to 9 o'clock A. M. of the 20th.

THURSDAY, DEC. 20.

At 9 o'clock A. M. the committee was called to order by the President.

The Premium List was again taken up, and farther action had thereon. At 12 M., on motion of Mr. Morton, the report was laid on the table, and the committee adjourned to 2 P. M.

At 2 P. M. the Committee met, and Mr. E. C. Roberts, of Salem, Washtenaw county, and Mr. Edward Mason, of Detroit, being present and wishing to be heard upon the subject of the potato, it was, on motion of Mr. Green,

Resolved, That Mr. Roberts and Mr. Mason now have an opportunity of being heard upon the subject of the potato.

Mr. Roberts and Mr. Mason each read a communication upon the potato, its cultivation, and the cause and cure of the potato rot.

On motion,

The communications of Mr. Roberts and Mr. Mason were laid on the table.

On motion,

The election of viewing committees for the 8th Annual Fair was commenced, and continued until 5 P. M., when the committee adjourned to 7 P. M.

At 7 o'clock P. M. the committee met and finished the election of viewing committees, and at 9 P. M. adjourned to 9 A. M. of the 21st.

FRIDAY, DEC. 21.

The committee was called to order by the President, at 9 o'clock A. M.

The committee on rules and regulations submitted their report, which was accepted the committee discharged.

The report was taken up, and after some action had thereon, was laid on the table.

On motion of Mr. Welch,

Resolved, That the Society will hold their 8th Annual Fair on Tuesday, Wednesday, Thursday and Friday, September 30th and October 1st, 2d and 3d, 1856.

Resolved, That the 8th Annual Fair be held in or near the city of Detroit; *Provided*, The citizens of Detroit shall pay, or secure to be paid, to the satisfaction of the Treasurer of the Society, the sum of twenty-five hundred dollars, by the first day of May next, to be paid into the Treasury by the first day of September next; otherwise it shall be located in any other town or city on the line of railroad in the State, that shall offer the greatest inducements to the Society, as determined by the Business Committe, by the first day of July next.

Resolved, That provided the citizens of Detroit do not comply with the above resolution, the Treasurer shall notify the Secretary of the fact; when it shall become the duty of the Secretary to notify the people of the State, through the daily papers of the city of Detroit, that they may compete for the location.

On motion of Mr. Crippen,

Resolved, That this Society does not expect its Secretary to give attention to raising any subscription which may be required for the location of the next State Fair at any particular place; nor will this Society hold itself responsible to any person for fees or charges for the performance of said duty.

On motion of Mr. Welton,

Resolved, That the Business Committee of this Society may, in their discretion, if the sum of $2,500 is raised and secured by the city of Detroit, make a contract with Mr. Parrish for the grounds at Hamtramck, at the sum of $1,500: *Provided*, All the necessary buildings and complete arrangements are made equal to those of last year, and the grounds placed entirely under the control of the Executive Committee of this State Society.

A communication was received from E. N. Willcox, Esq., relative to a premium having been awarded to the stallion Jackson, which was read and Mr. Willcox heard in explanation.

On motion of Mr. Crippen, it was

Resolved, That the Secretary be instructed to withhold the diploma said to have been awarded to the stallion Jackson, at the last Fair, until

all the members of the committee give evidence that such award was determined upon previous to making their report to the Society.

On motion of Mr. Morton,

Resolved, That the consideration of awards to County Societies for efficient organization, be postponed until the reports of such Societies are made to the Secretary of the State Society.

The Committee on Awards to County Agricultural Societies reported as follows:

The committee respectfully report the amount of cash premiums awarded to the counties herein named, with the respective population of each, as taken from the last census, as follows:

Counties.	Population.	Premiums Awarded.
Washtenaw,	28,836	$ 652 50
Wayne,	65,728	1,230 00
Branch,	15,724	182 50
Lenawee,	31,148	122 50
Macomb,	18,122	246 00
Oakland,	31,884	469 50
Hillsdale,	19,188	181 50
Jackson,	21,855	210 50
Livingston,	14,185	22 50
Lapeer,	9,704	37 00
Calhoun,	22,768	56 00
St. Joseph,	15,087	15 00
Genesee,	15,676	14 50
Kalamazoo,	16,893	8 00
Shiawassee,	7,419	3 00
St Clair,	16,897	13 00
Kent,	17,869	3 00

Your committee report Branch county as the banner county, and therefore, entitled to the premium offered.

At 12 o'clock M., the committee adjourned to 2 P. M.

At 2 o'clock P. M. the committee again met, and

On motion of Mr. Moore,

Resolved, That Hon. Charles E. Stuart, of Kalamazoo, be invited to address the Society at its Eighth Annual Fair.

The report of the Finance Committee was taken from the table and adopted.

The report of the Committee on Rules and Regulations was taken from the table and adopted.

The report of the Committee on Premium List was taken from the table and adopted.

REPORT OF THE COMMITTEE ON RULES AND REGULATIONS.

The committee to whom was referred the subject of rules and regulations for the 8th Annual Fair, beg leave to report as follows:

Having examined carefully the rules and regulations for 1855, we have concluded to adopt them in the main, with the alterations and additions herein stated.

In the last clause, on the first page of the printed rules, insert, after the words "full blood," the words, "or a full blood entering as a grade."

We recommend that six marshals be appointed by the business committee to assist in the operations of the Fair, who shall be mounted on horseback, and wearing suitable badges to designate them as marshals.

We also recommend that all horses and cattle that are awarded premiums, shall have suitable badges placed upon them to designate them according to merit, viz:

A first premium to be designated by a blue ribbon.
A second " " red "
A third " " white "

All stallions entered for premium must have been kept for service, and owned in the State for the last season.

Draft horses, except stallions, shall be tested by the committee, to actual draft in harness, and stallions may be tested, at the option of the exhibitors.

All horses entered as a matched pair for trotting, must have been owned and kept together as a span. No single horse entered for trotting, will be allowed to compete for the premiums in that class if he is kept for sporting purposes, or has been a winner of money on a race course.

Oxen exhibited as working cattle, for their being the best broke, must be hitched to either a wagon or cart, and tested, not only in tractability but in draft, and backing with a load.

Trotting horses shall be tested in harness, by going at least one mile and repeat, under the direction of the viewing committee.

The judges on trotting stallions will take into consideration other qualities in connection with speed.

All horses, of every class, entered for premium, must be on the ground at 10 o'clock A. M. of the second day of the Fair, in order to enter into a grand cavalcade, and to be walked around the ring.

All horses will be required to remain on the ground for the space of four hours in each day, under the direction of the marshals.

All neat cattle must be led into the ring for examination, when requested by the marshal, and there remain until the judges have decided upon their merits, when the winners of prizes will be designated by badges, and returned to their stalls.

In Division C., Class 3.

All foreign machinery and farm implements that shall be presented for exhibition, and thought worthy of a premium, shall be entitled to a diploma only.

We would recommend that some disposition be made of all foreign articles that may be offered for exhibition, that they have a place in our exhibition, and if thought worthy, that such a premium be awarded as seems judicious, to-wit, a diploma.

As soon as the viewing committees have fully determined on the premium articles, they shall be designated on the cards.

When a majority of a viewing committee are present they shall constitute a quorum, and be authorized to award the premiums; and the first named on the list of those present, shall be chairman.

No discretionary premiums will be paid until approved by the business committee, and they may modify or refuse to allow the same, as they may think best.

All stock entered as thorough bred, must be accompanied with a concise written statement, certified to by the owner, specifying the exact age, breed and pedigree. Unless this rule is strictly complied with, the animals will be excluded.

REPORT OF FINANCE COMMITTEE.

The amount of indebtedness of the Michigan State Agricultural Society for the year 1854, and paid since the fair of 1855, and previous

to the meeting of the Executive Committee, on the 17th day of December, 1855:

By over draft, January 1st, 1855,	$1,532 67
By J. C. Holmes' drafts for premiums,	389 00
By H. H. Brown, for interest acct.,	245 00
By expenses of Executive Committee,	122 37
By J. C. Holmes, on acct. of salary,	500 00
By amount paid for spoons,	121 00
By S. S. Barrows, for lumber and work on the Fair grouud, 1854,	150 00
Total,	$3,060 04

The Michigan State Agricultural Society in acct. with H. H. Brown, Treasurer:

To amount received from the Society since January 1st, 1855,	$8,477 21	
Balance carried down,	330 27	
		$8,807 48

Contra.

By overdraft, January 1st, 1855,	$1,532 67	
By J. C. Holmes drafts for premiums, 1854,	389 00	
By " " " 1855,	1,372 00	
By H. H. Brown, Treasurer,	15 00	
By " interest account,	245 00	
By Metz & Holmes' drafts for the Executive Committee,	5,253 81	
		$8,807 48
To balance due H. H. Brown,		330 27

The Michigan State Agricultural Society's indebtedness, Dec. 1855:

Dec. 19. Amount due for premiums, as per statement of J. C. Holmes,	$2,572 50	
Amount due for sundry checks out,	97 23	
Amount due H. H. Brown for cash overdraft,	330 27	
		$3,000 00

Contra.

Due from Jonas H. Titus for lumber,	100 00	
Due from George Winter, supposed,	130 00	
		230 00
		$2,770 00

Items for which drafts were drawn and amount paid by Metz & Holmes, for the Executive Committee, during the past year:

For rent of office,		$ 83 00
For printing premium list, posters, cards, advertisements &c.		224 00
For feed for animals at the Fair, 1855,		424 86
For meals for committees, superintendents, &c.,		118 12
For clerks at the Fair,		93 45
For paid Morrison & Concklin for spoons for premiums,		121 00
For paid expenses of Executive Committee for 1854,		122 37
For paid J. C. Holmes on acct. of salary,		500 00
For paid Hon. Jacob Broom for address and expenses,		125 00
For paid sundry persons for internal work at Fair,	$407 36	
For paid J. McAllister for fitting up Fair ground,	1,563 26	
For paid S. S. Barrows for fitting up Fair ground, 1854,	150 00	
For paid J. C. Holmes for cash advanced in paying sundry items,	273 55	
For paid Hugh Moffat, lumber for Fair ground,	642 26	
For paid H. Metz, for payment of superintendents, &c.,	405 58	
		3,442 01
		$5 53 81

Amount charged in Treasurer's account to the Executive Committee,	$5,253 81
The committee find, on examination, J. C. Holmes' account with the Society for $273 55, correct,	$273 55

This am't deducted from expenses of grounds,	3,442 01	
Leaves,		$3,168 46
Deduct amount paid S. S. Barrows,		150 00
		$3,018 46

All of which is respectfully submitted.

F. W. BACKUS,
JOHN MILLER,
A. N. HART.
Committee.

In accordance with the provisions of an amendment to the Constitution, the committee proceeded to ballot for six of its members to serve for two years.

The following members were elected:

F. W. BACKUS, Detroit.
HORACE WELCH, Ypsilanti.
A. N. HART, Lapeer.
E. G. MORTON, Monroe.
J. B. CRIPPEN, Coldwater.
W. S. H. WELTON, Grand Rapids.

On motion of Mr. Welch,

Resolved, That the business committee be authorized to transact all business that the Executive Committee could if in session.

On motion,

The report of the committee on horses for all work was corrected so that the premium, incorrectly reported as having been awarded to a mare owned by John McCrea, shall be given to the colt instead of the mare.

The business committee appointed for 1856 consists of:

F. W. BACKUS, Detroit.
HORACE WELCH, Ypsilanti.
E. G. MORTON, Monroe.
J. C. HOLMES, Detroit, as Secretary.

On motion of Mr. Crippen,

Resolved, That the time for persons to have the privilege of taking

silver spoons instead of medals that have been awarded to them, shall expire on the 22d day of March, 1856.

On motion of Mr. Crippen,

Resolved, That a majority of the Business Committee shall be authorized to act on all business coming before them; and that no check shall be drawn except for accounts which have been audited and signed by two members of the committee, and the accounts as audited filed with the Secretary.

Resolved, After consideration, that the evidence of the cause and cure of the potato rot offered by Mr. E. Mason and E. C. Roberts, is insufficient to entitle either of them to the premium.

Resolved, That all unsettled accounts be referred to the Business Committee, and that they be requested to close them as soon as possible. Adjourned.

The committee met at 7 P. M.

On motion of Mr. Welch,

Resolved, That the resolutions passed by the Executive Committee, requesting E. M. Crippen, of Coldwater, to return moneys awarded him on foreign stock, taken in connection with the resolutions preceding it, casts reflection upon him unjustly. It is the opinion of the Executive Committee that Mr. Crippen should return the money, not because of any unfairness on his part, but because the stock entered to compete with him was erroneously entered.

On motion of Mr. Crippen,

Resolved, That the thanks of this Society are due, and are hereby tendered to H. H. Brown, Esq., its late Treasurer, for the efficient and liberal manner in which he has discharged the duties of his office.

On motion of Mr. Welton,

Resolved, That the thanks of this Society are due to Mr. E. Mason for his interesting and able essay upon the potato rot; and that they consider it worthy of a prominent place in their Transactions, and therefore request a copy for publication.

The following delegates were appointed:

To the United States Agricultural Society's annual meeting at Washington, D. C., January 9th, 1856—Hon. Charles E. Stuart, Hon. Geo. W. Peck, Hon. Henry Waldron.

To the Ohio State Fair, 1856—J. B. Crippen, A. Y. Moore, M. Shoemaker, F. V. Smith.

To the New York State Fair, 1856—M. Shoemaker, J. C. Holmes, John Miller, A. N. Hart.

To the Illinois State Fair, 1856—Horace Welch, W. S. H. Welton, James K. Kinman, C. A. Green.

On motion of Mr. Crippen,

Resolved, That the thanks of this committee are hereby tendered to our President, Hon. Michael Shoemaker, and to our Secretary, J. C. Holmes, Esq., for the courteous and efficient manner in which they have discharged their respective duties.

On motion of Mr. Welton,

Resolved, That this Society have entire confidence in the integrity and ability of the Secretary, (Mr. J. C. Holmes,) and that any insinuations or reflections upon him in his official capacity are unworthy the consideration of this Society or of himself.

At 9 o'clock P. M. the committee adjourned to meet the evening of the 29th September, 1856.

MICHIGAN--HISTORICAL AND STATISTICAL.

The following paper was prepared by our deceased and lamented friend, Rev. Charles Fox, and published in Debow's Review, May, 1853. It is a valuable and instructive paper, therefore we copy it into our volume of Transactions for 1855. Indeed, a short time previous to the decease of our friend, at our request, he had promised to furnish for the Transactions a similar paper to include statistics of a later date:

The State of Michigan is naturally divided into two portions, the the southern peninsula and the northern or Lake Superior country.

The first is bounded on the west and north-west by Lake Michigan, and on the east and north-east by Lake Huron, the River and Lake St. Clair, the Straits of Detroit and Lake Erie. At the south, it rests upon Ohio, Indiana and Illinois. The south line is one hundred and seventy four miles east and west; and the length of the Peninsula north and south, three hundred miles.

The northern or upper Peninsula begins at the eastern end of Lake Superior, runs southerly along the Sault Sainte Marie River, lies nearly at right angles with the southern Peninsula, and is separated from it by a part of Lake Michigan as far as the Menomonee River. It then takes a north-west course to the Montreal River, from the mouth of which it follows the southern shore of Lake Superior to the place of beginning, presenting an irregular and nearly isolated form, varying from twenty to one hundred and twenty-five miles in width.

If a barrier of eighteen feet high existed across the foot of Lake Huron, Lakes Huron and Michigan would rise to a level with Lake Superior; and if a similar barrier of thirty-one feet was placed across the foot of Lake Erie at Buffalo, the four lakes would become one uniform level, and merged in one immense inland sea.

Table of the Height of Lake Superior, with the intermediate Lakes above, and their distances from Tide-Water.

Route.	Miles.		Feet.	
St. Lawrence River, up to tide-water	—	450	—	—
Level, Lake Ontario	200	650	—	232
" Lake Erie	175	825	333	565
" Lake Huron,	340	1,165	13	578
" Lake Michigan,	—	—	—	578
" Lake Superior,	240	1,405	18	596
West end of Lake Superior,	490	1,895	—	—

Table of the Mean Length, Breadth, Depth, Area and Elevation of the Lakes.

	Mean Length, miles.	Mean Breadth, miles.	Mean Depth, feet.	Elevation, feet.	Area in square miles.
Lake Superior,	400	80	900	596	32,000
Green Bay,	100	20	500	578	2,000
Lake Michigan,	320	70	1,000	578	22,400
Lake Huron,	240	80	1,000	578	20,400
Lake St. Clair,	20	18	20	570	360
Lake Erie,	240	40	84	565	9,600
Lake Ontario,	180	35	500	232	6,300
R. St. Lawrence,	—	—	20	—	940
Total,					94,000

Economically, the surface of the State may be divided into *four* distinct portions. I. The borders. II. The lower half of the southern Peninsula, extending a little north of Grand River, and including an area of nearly ten millions of square acres. III. The upper half of the same. IV. The mineral country in the north.

I. Nearly the whole of the southern Peninsula is surrounded by a low level belt, consisting of lands more or less marshy and heavily timbered, the soil being a rich clay loam, interspersed here and there with ridges of sand. This belt varies in depth from five to forty miles along the borders of the lakes, and gives evidence of its having been submerged at a comparatively recent period. When it is cleared of its timber it becomes dryer, and bears not only heavy crops of grain, especially if drained, but remarkably luxuriant grass and clover. The natural growth is chiefly blue grass *(Poa Compressa)*; June grass,

English grass, *(P. Pratensis);* and pasture grass, *(P. trivialis);* together with white clover, *(Trifolium repens).* But timothy, *(Phleum pratense,)* and the red clovers, *(T. pratense et reflexum,)* when once introduced, soon become naturalized. The latter is indigenous, and in some places comes up as soon as the soil is plowed. Sedge *(Carex,)* in a great variety of species, abounds in the damper places, and is cut in large quantities for hay. Cranberry marshes are also numerous, and add to the annual export from the State. This portion of the State promises to be eminent as a pasture and dairy district, but owing to its dense forest, it is yet less thickly settled than many other parts of the country.

II. After this belt is passed, the appearance of the State entirely changes, becoming picturesque and rolling; the soil is of a lighter and dryer character; the timber more scanty; circumscribed marshes, natural meadows, and prairies abound; and small lakes or ponds everywhere delight the eye. The soil varies to a considerable extent, and may be divided into—1. Heavily timbered lands, chiefly along the rivers and streams, generally of a deep, adhesive, loamy clay. 2. The barrens, a fair calcareous soil, not deep, and thinly covered with stunted oaks. 3. The white oak openings, which constitute the greater portion of this part of Michigan. They resemble fine old English parks, with the trees scattered in clumps, or at a considerable distance from each other, springing from a rich natural soil, gorgeous with flowers and free from underbrush. The soil is a thin layer of black vegetable mould, intermixed with gravel. The subsoil consists of marl, limestone, pebbles, sand, clay, and yellow loam. This land is eminently favorable for the production of wheat, for which purpose it is probably not surpassed in the United States; but the grasses and clovers do not succeed so well without plaster and other manures. 4. The prairies, chiefly in the western part of the State, and limited in size, consist of a deep, black, vegetable mould, and resemble the best lands in Illinois; they are generally above the level of the surrounding country. 5. The burr oak plains appear like cultivated orchards. The soil is composed of a mixture of the earth of the prairies, and the white oak openings; abounding in lime as it does, it is eminently productive, and next to the prairies is preferred for agriculture. 6. The marshes, or meadows, are a striking and peculiar feature of the State. Exceedingly abundant, wet in

winter, but generally dry enough to mow, formed of vegetable mould and marl, they are covered with a dense growth of long grasses, affording two tons to the acre, and fully recompense for the comparative difficulty of growing the cultivated grasses. As pasture they make excellent beef, and everything prospers on them. They were a marked element of success in the early settlement of the State. 7. The lakes number not less than 3,000; "exceeding in number and beauty all others perhaps on the globe." Most of them contain rich beds of marl, nearly pure carbonate of lime, mixed with petrified shells. Of course, they give rise to numerous streams and rivers; and in consequence good mill-sites are to be met with every few miles. Both the lakes and streams abound in fine fish. The highest land in the State, or the "water-shed," in Hillsdale county, is 633 feet above Lake Michigan. The average height of the Peninsula is 160 feet above the surface of the lakes; but the ponds, forming the sources of the rivers, are chiefly on the greatest elevation.

III. The upper half of the southern Peninsula, north of Grand River, constitutes the *fine country*, generally sandy, and if the borders along the lakes be excepted, as yet sparsely settled, except by those engaged in the lumber business.

IV. The mineral country, including the whole of the Upper Peninsula, with its primitive rocks, long winters, heavy growth of timber, and broken country, will not probably attract the attention of farmers, to any great extent, until the rest of the State is thickly inhabited. This region, however, is celebrated for its healthy climate, and its freedom from bilious and pulmonary affections. It will be perceived from this hasty glance, that, physically, Michigan possesses within itself everything that an independent republic can require:—rich pasture-lands, unsurpassed grain soils, timber of great size and variety, both hard and soft, large quantities of which are exported not only to the west and south, but also to the seaboard—lakes, rivers and mill-streams in abundance; fish, salt springs and plaster quarries, copper, iron, zinc, silver, coal, limestone, sandstone and marl; a climate as moderate as that of Pennsylvania, and one of the dryest in America, and above all, it is so shaped, and so surrounded by water, that the greater portion of it is accessible to large vessels.

Michigan was first colonized by the French, about the year 1671, and

the existence of native copper was ascertained early in the eighteenth century. The settlements, however, were few and far between, the European population being principally engaged in the fur trade, while a few devoted missionaries passed their lives in a vain endeavor to convert the Indians to Christianity. Cadets of good families appear to have been among the early settlers, if we can judge from the names still remaining, and the uniform politeness of the French *habitans*, which have survived nearly all other characteristics of the old regime. Detroit was planted in 1701, by M. de la Motte Cadillac, with one hundred men and a Jesuit; at which period buffalo ranged wild through the woods. In 1760 this country fell into the hands of the British. In 1766 we find the Hudson Bay Company extending their operations to this teritory; and in 1783 the North-Western Company was formed for the purpose of collecting furs in Michigan. The following table exhibits the product of their trade for one year previous to 1774:

Beaver skins,	106,000
Bear skins,	2,100
Fox skins,	1,500
Kitt fox skins,	4,000
Otter,	4,600
Musksquash skins,	16,000
Martin Skins,	32,000
Mink skins,	1,800
Lynx skins,	6,000
Wolverine skins,	600
Fisher skins,	1,650
Raccoon skins,	100
Wolf skins,	3,800
Elk skins,	700
Deer skins,	750
Deer skins, dressed,	1,200
Buffalo robes,	500

and a quantity of castorum.

Montreal was the principal depot of the company, whence the skins were shipped to England.

Beavers have become all but extinct; and the wolverine, from which

the State obtains its *sobriquet*, is all but unknown in the southern Peninsula.

This company finally disposed of its interest to the American Fur Company, organized by John Jacob Astor.

In 1772 a mass of native silver, now deposited in the British Museum, was found on the shore of Lake Huron, and in 1773 a company, for the purpose of working the mines, headed by the Duke of Gloucester, was chartered by the British government; but after considerable expenditure of means, the adventure was found unprofitable and abandoned. By the treaty of 1783 the territory ways virtually ceded to the United States, but was still withheld, by England, from actual possession, until 1796. At this period great ignorance regarding Michigan prevailed in the east, the fur companies probably considering it to be their interest to keep out the American population as long as possible. It has been stated that the Virginian soldiers' claims, afterwards located in the Sciota valley in Ohio, were at first settled in Michigan, but changed from the current belief that this State was one vast swamp, with merely a belt of harder land around it. Less than forty years ago a map of the territory was published in New York describing it as such. There were no roads into the interior, the only means of travel being by Indian trails, and the French population were settled upon the Detroit and St. Clair rivers, and the small streams entering into them. On the 11th of January, 1805, Michigan was erected into a separate territory by act of Congress. During 1812-13, it was again, in consequence of General Hull's surrender, for a short time once more in possession of the British. At this time cultivation was conducted to a very limited extent, and in the most antiquated modes; schools were almost unknown; commerce was limited to the immediate wants of the people; and, at this day, no perceptible influence for good remains from the early settlements. By degrees, as early as 1820, enterprising Americans began to find their way further into the interior; but it was not until about 1834 that any general immigration commenced, and from 1836 to 1840, the great bulk of the American population entered the State. They were chiefly young persons, or newly married couples, from Vermont, New Hampshire, and other New England States, and New York, principally the western portion of it. In 1836 the Territory was erected into a State. The energy, intelligence, education, and spirit of the earlier American

settlers have given a peculiar character to Michigan, which it still retains. It will be remembered that in 1837-8, the disastrous commercial revulsion occurred, and thousands of city mercantile men were suddenly cast from opulence into poverty; numbers of these, with their families, found their way to this State; a large portion of them became farmers; others were scattered among the rising villages; and thus, from the first, the polished manners, the educated ability, and the practised experience of our largest eastern cities were sown broadcast over the country, to produce, in the present generation, a most promising harvest. Foreigners to a very limited extent have sought this State as a home, but have passed round the lakes to Wisconsin, Iowa and Illinois. The following table, from the census of 1850, will give a just idea of the population. The Hollanders, as well as some of the Germans, have colonized by themselves:—

TABLE OF THE NATIVITIES OF THE POPULATION OF MICHIGAN, 1850.

Maine,	1,117
New Hampshire,	2,744
Vermont,	11,113
Massachusetts,	8,167
Rhode Island,	1,031
Connecticut,	6,751
New York,	133,756
New Jersey,	5,572
Pennsylvania,	9,452
Delaware,	368
Maryland,	537
District of Columbia,	45
Virginia,	1,504
North Carolina,	312
South Carolina,	81
Georgia,	68
Florida,	12
Alabama,	19
Mississippi,	34
Louisiana,	30
Texas,	4

Arkansas,	25
Tennessee,	101
Kentucky,	402
Ohio,	14,677
Michigan,	140,648
Indiana,	2,003
Illinois,	496
Missouri,	92
Iowa,	59
Wisconsin,	332
California,	3
Territories,	36
England,	10,620
Ireland,	14,430
Scotland,	2,361
Wales,	127
Germany,	10,070
France,	945
Spain,	10
Portugal,	2
Belgium,	112
Holland,	2,542
Turkey,	2
Italy,	12
Austria,	21
Switzerland,	118
Russia,	25
Norway,	110
Denmark,	13
Sweden,	16
Prussia,	190
Sardinia,	2
Greece,	1
China,	1
Africa,	3
British America,	14,008
Mexico,	4

South America,	5
West Indies,	34
Sandwich Islands,	2
Other countries,	66
Unknown,	1,211
Deaf and Dumb,	122
Blind,	122
Insane,	136
Idiots,	190

Acres improved land, (1850) 1,929,110; unimproved land in farms, 2,454,780 acres. Cash value of farms, $51,872,446; average cash value per acre, $11 83; ditto in Louisiana, $13 71.

The southern half of the State is now planted with fine farms, containing houses, out buildings and barns, not inferior to those of any portion of the United States; and beautiful villages of from 500 to 5,000 inhabitants, laid out and built with the taste and neatness that characterize the New Englanders, while schools and churches everywhere abound. In the year 1850 Michigan contained 362 places of worship, being in a ratio of one church to every 1,098 souls; and the total value of church property was $723,200. This, however, does not fairly represent the church accommodation, as school houses are extensively used as places of worship, where the denomination is not yet sufficiently numerous or wealthy to erect a building for itself.

The following table shows the statistics of the leading denominations in 1850:

Names.	Number of Churches.	Total value.
Baptists,	58	$ 84,050
Congregational,	29	59,550
Episcopal,	25	82,800
Methodists,	103	*142,650
Presbyterians,	67	*142,650
Roman Catholics,	42	159,775

Detroit is the principal city, and until of late years contained the capital of the State. This is now located at Lansing. The population of Detroit is a little over 30,000.† It has not grown with the rapidity of

*This is so in the census tables, and I do not suppose it to be a mistake. C. F.
†In 1819, 1,010: in 1824, 1,325, and 396 buildings.

many other western cities, probably in consequence of the scanty settlement of the heavy timbered country immediately around, and the unusual proportion of villages throughout the rest of the State. The Central Railroad to Chicago (commenced by the State, but now owned by a Boston company) begins here, and will shortly connect with the Great Western Railroad, running from Niagara Falls, through southern Canada to the Detroit River, and forming a united line from Chicago to New York city. The chief business of Detroit is forwarding, shipbuilding, foundries, steam-engine shops, saw-mills—the logs being procured from St. Clair and Saginaw—tanneries, together with the usual stores of a prosperous city. Some wholesale business is done, but not as much as might be expected, the communication with the east by means of the lakes and the New York Canal and railroads being so easy and cheap. A railroad also runs to Pontiac, about thirty miles N. W., and several plank roads are completed, the longest of which is about one hundred and thirty miles. The best of these pay dividends not exceeding ten per cent. per annum on the cost, besides reserving a sinking fund for repairs; but every year the stock is becoming more valuable. The city is lit with gas, and supplied with water by a steam apparatus owned by the corporation. The hotels are numerous in proportion to the population, and the best of them are fine buildings, bearing a high reputation. Three daily papers, two agricultural, several weekly, secular and religious, and two monthly magazines, are published here.

From the first organization of the State, peculiar and anxious attention has been paid to popular education; and perhaps no new State in the Union has greater reason to feel proud of its progress in this respect. Michigan was the first State to establish a constitutional officer, under the name of Superintendent of Public Instruction. The system is wide and comprehensive, founded on the Prussian scheme, and may be described as follows:—A general supervising head of the Department (a Superintendent,) a University in which education is free, governed by a President, who is appointed by a Board of Regents, the latter being elected by the people; branches of the University in various parts of the State, to act as feeders, at present in abeyance; and a system of primary schools under the management of certain township officers, with a large fund sufficient to afford three months, at least of education

in the year, free of cost to the pupils. To this may be added a Normal School; three departments are organized in the University, viz:—science and art, medicine, agricultural and mechanical art, including natural history, chemistry, &c. The following statistics are brought down to December 31, 1851:

Disbursements of the State for the University, since 1837,	$286,928
School Fund invested, (annually increasing from sale of lands,)	811,000
School Districts,	3,307
Children residing in do,	143,222
" attending school,	115,165
Paid to teachers, 1851,	$154,469
Volumes in township libraries,	97,158

A mill tax is annually levied to purchase books for these libraries. Both the University and primary schools own large tracts of land, the proceeds of which, as sold, are funded.

The University is located at Ann Arbor, the Normal School at Ypsilanti, and both possess handsome, substantial, and convenient buildings. A good library and museum belong to the University.

Besides these, there are forty academies, theological institutions, literary societies, &c., incorporated by act of the Legislature, and a number of private seminaries not so incorporated.

There exists a general plank-road law, and such roads are now made or being made, in all directions.

There is a railroad in the south, commencing at Toledo, O., and Monroe, Mich., both on Lake Erie, and running partly through Michigan, partly through Indiana, to Chicago. It connects with the Ohio railroads, and these with the New York Southern Railroad. It was commenced by the State, but is now owned by a New York company. There is no finished canal in the State.

The fisheries upon the Upper and Lower Lakes are of great importance, those for catching trout and whitefish* especially. The whitefish are migratory, living in Lake Erie, and in the fall of the year proceeding

*Trout, *Salmo amethystes* (Min.); whitefish, *Corregonus albus* (Les). Besides these, the most valuable are pickerel, *Lucioperca Americana;* pike, *Esox reticulatus;* muskelonge, *E. estor;* catfish, *Timelodus catus;* herring, *Hyodon tergisus;* sturgeon, *Sturio maculosus*, (growing to six or seven feet long,) and siskowit, a species of salmon. A marked peculiarity of most of the Lake fish is the quantity of *fat*, resembling that of quadrupeds, which they contain—entirely different from the salt-water fish. While their flavor differs from that of the latter, it is much more delicate and richer than that of river fish. The brook trout is found in abundance in the Lake Superior country. Eels are unknown.

northwards, when they are caught, salted and barrelled. Some twenty other species of good eatable fish frequent the lakes, and every year the pursuit of them becomes of greater commercial importance. The export, annually, of all sorts, is estimated at $300,000. A grant of land has lately been made by the Federal Government for the construction of a canal at the Sault Ste. Marie, to connect Lakes Huron and Superior. It is intended to be large enough for the deepest vessel, and will probably be finished in two years.

For several years the topographical corps of the United State Army (at present under the command of Captain John N. Macomb) have been employed in surveying the Lakes, and have completed them to to the west of Mackinaw. The maps are monuments of great skill, perseverance, and ability, and will compare well with any executed under the direction of European governments.

The following tables are taken from the State census of 1850, and Mr. Lanman's History of Michigan:

POPULATION OF MICHIGAN.

1834.	1837.	1840.	1845.	1850.
87,273	175,000	212,267	304,280	400,000

COMPARATIVE TABLE SHOWING CERTAIN RETURNS FOR 1837, 1840 AND 1849.

	1837.	1840.	1849.
Bushels of wheat,	1,014,896	2,157,108	4,739,299
" all others grains,	2,038,129	4,666,720	8,179,767
Pounds of wool,	——	153,375	1,645,756
Horses,	14,059	30,144	52,305
Neat Cattle,	89,610	185,190	210,268
Swine,	109,096	295,890	152,541
Sheep,	22,684	99,618	610,563
Saw Mills,	433	490	730
Flouring Mills,	114	190	228

TABLE SHOWING VARIOUS STATISTICS OF MICHIGAN FOR THE YEAR 1850.

Dwelling houses,	71,515
Number of families,	72,560
Value of real estate,	$74,968,344

Occupied farms,	34,879
Cash value of farms,	$51,914,644
Value of farming implements,	2,748,311
Horses,	57,842
Asses and mules,	44
Milch cows,	97,557
Working oxen,	56,203
Other cattle,	117,043
Sheep,	756,382
Swine,	202,588
Value of live stock,	$7,852,550
Bushels of wheat,	4,893,141
" other grains,	8,197,178
Wool, pounds of,	2,007,598
Value of orchard products,	$130,522
Butter, pounds of,	7,056,478
Cheese, pounds of	1,112,646
Maple sugar, pounds of,	2,426,087
Feet of lumber sawed,	301,157,500
Value of "	$2,221,798
Value of annual products of all kinds of manufactures,	$10,111,488

Besides these, large quantities of barrel staves and heads are annually exported, and the flour barrels and fish barrels consume a large quantity of timber, which leaves the State forever.

The Army Meteorological Register, (Washington, D. C., 1851,) affords the following data regarding the climate:

	Number of years of observations.	Mean Annual temperature.	Average mean temperature.				Highest degree.	Lowest degree.	Mean Annual Range.	Prevailing wind.	Prevailing Weather.	Mean annual rain in inches.	Latitude.
			Winter.	Spring.	Summer.	Autumn.							
Fort Mackinac,	7	40.37	20.08	36.69	61.33	43.39	90	23	97.57	W.	Fair		45d. 51' 00"
Sault Ste. Marie,	12	39.82	17.64	37.39	61.79	42.47	98	30	114.39	N. W.	Cloudy,	29.588	46d. 29' 55"
Fort Gratiot,	9	46.96	25.77	43.22	67.44	48.02	96	18	102.88	S. W.	Fair	38.516	42d. 51' 00"
Detroit,	4	47.30	28.69	46.32	66.44	47.98	94	5	95.00	S.	Fair	28.300	42d. 19' 18"
Dearborn Arsenal,	1	49.21	30.73	51.43	66.21	48.50	100	8	108.00	W.	Fair	21.610	42d. 20' 00"
Chicago, Ill.,	4	46.18	25.56	45.06	66.96	47.16	94	22	109.00	N.	Cloudy	——	41d. 50' 00"
Fort Jesup, Louis.,	12	65.81	49.79	66.94	80.84	65.32	100	8	81.58	N.	Fair	46.243	31d. 30' 00"

The climate of Michigan is hotter in summer, and averages milder in winter, than would be expected from its position, Detroit being in latitude 42 deg. 19 m. 18 sec., and longitude 82 deg., 58 m.; but its almost insular position, and the large bodies of water which surround it, produce a marked effect. There is much less snow, and the winters are shorter and more irregular than in the same latitude in Western New York. The western coast *appears* to have a colder climate and more snow than the eastern, probably owing to the unwooded prairies of Wisconsin, and the prevailing winds being west and northwest.

From an early period, a periodical rise and fall of water in the lakes has been observed. Formerly the notion prevailed that this was owing to a *tide* which ebbed and flowed each seven years; but more modern observations attribute it to "a successive series of cold and moist years, and a series of warm and dry ones, mutually following each other;" and considering that a surface of 248,755 square miles of land, besides that of the lakes, drains into the St. Lawrence, this is probably the true explanation. But correct meteorological observations have not yet been made for a sufficient length of time to decide the question.

Taken altogether, Michigan enjoys an unusually dry and agreeable climate. On the Detroit River, winter rarely sets in before the end of December, and is passed by the beginning to the end of March. Instances have occurred during the last fifteen years, when the ground could be plowed, and steamboats have passed from Detroit to Buffalo, every month in the year. The spring is the most unpleasant and changeable season. The falls are usually very beautiful, dry and cloudless. It is, however, remarked by old residents, that a decided change in the length and severity of the springs has taken place during the last half dozen years. The same belief (whether just or unjust) is entertained in New York and Pennsylvania.

As regards health, Michigan will compare favorably with any other western State. Till very lately, the only serious diseases known were ague, generally of a mild character, and *lung fever* (bilious inflammation of lungs) in winter. Once or twice, congestive fever has proved epidemic in a few localities; and, occasionally, on the lake shore, *black tongue*, with other forms of erysipelas, appears in winter and spring. The diseases of the eastern States seem, however, to be gradually creeping in; and in Detroit, we have cases of small-pox, scarlet fever, and

pulmonary consumption; but all forms of disease are generally light. Apparently, consumption is complicated with disorders of the liver. All kinds of domestic animals suffer from biliary derangement, but scarcely to as great an extent as formerly.

The Michigan Southern and Northern Indiana Railroad Companies have issued a report, says the Buffalo Courier, of the business of the road during the last six months. The Northern Indiana Road was opened for use through its entire length, June, 1852, thus furnishing, in connection with the Michigan Southern Railroad, a direct communication from Chicago to Lake Erie, at Monroe and Toledo. Since the first of July, the entire line has been operated as one road. The gross earnings for the six months ending December 31, were:

From passengers,	$332,223 56	
Freights and mails,	259,963 44	
		$592,187 00
The expenditures were:		
Operating, repairs and equipment	$293,046 75	
Interest,	92,653 41	
		385,700 16
Net earnings for six months,		$206,486 84

The income account, on the first day of January, 1853, stood as follows:

1852—Balance of income acct., July, 1852,		$ 49,614 70
Gross earnings for six months, as per the preceding statement,		592,187 00
		$641,801 70
Less expenses, interest, &c,		385,700 16
1853—Jan. 1. Balance to credit to this account,		$256,101 54
Semi-annual dividend of five per cent.,		124,970 52
Balance of income account,		$131,131 02
Against this balance there has been charged for extraordinary expenses, incurred in forming the boat connections upon Lake Erie and Michigan during the past season,		34,357 86
Leaving to credit of income account,		$96,773 16

The length of roads of the companies is as follows:

Main line of the Michigan Southern Road,	131
" " Northern Indiana Road,	113
	244
Branches,	71
Total miles,	315

After deducting the cash and other property on hand, the present actual investments in the construction and equipment of the 315 miles of road, is about six millions of dollars. This is less than $20,000 per mile—a cost not exceeding one-third to one-half the cost of similar works in New York and the eastern States.

Michigan, it is believed, was the first State to pass a homestead exemption law, and to abolish capital punishment; and among the first to relinquish the old and barbarous system of locking up debtors in prison. The first is said to have been originated by a farmer. It was ridiculed and opposed, but is now adopted by a majority of the States.

The copper mines of Lake Superior had evidently been worked very extensively in very remote periods. These ancient works are of great magnitude, and are found extending over a wide space. Mr. C. Whittlesey (*Smith's Annals of Science*, Vol. 1, No. 2,) believed these miners to have been the "race of the mounds" which occupied the State of Ohio, at a very remote period, and from whom descended the Aztecs, the ancestors of the Mexicans. The present race of Indians appear to have been entirely ignorant of the art of mining, and even of the very existence of the old workings.

The copper in the present day is found in masses, some loose, weighing over six tons; in veins of various thickness; and in ores mixed with rock. The mines are generally worked by shafts, until a vein is hit, when it is followed, the copper cut out with chisels, and raised to the surface. The following table shows the condition of the mines in 1850. The amount of mineral sent to market has since largely increased, and copper smelting works have been established near Detroit. Large quantities, however, are exported to Boston and Pittsburgh:

Lake Superior Companies.	Nature of Mines.	Capital.	Kinds of Power Used.	No of Male Hands.	Quantity produced annually. Tons.	Nature of Product.	Value of Product.
North-west Mining Co.	Copper.	$50,000	Water	114	80	Na've Copper,	$17,000
Copper Falls Mining Co,	"	65,000	Horse	30	10	"	3,000
North-western Mining Co.	"	10,000	Hand	14	—		
North American Mining Co.	"	70,000	Steam	110	85	Native Copper	17,000
Albion Mining Co.	"	15,000	Hand	9	—		
Cliff Mine,	"	207,360	Steam & horse	180	1,028	Native Copper	157,000
Lac le Belle Mining Co.	"	28,000	Horse	6	10	Gray Ore	600
Iron City Mining Co.	"	1,500	Horse	15			
Isle Royale Mining Co.	"	14,000	Steam	19			
Cape Mining Co.	"	500	Horse	6			
Pittsburgh & Isle Royale Min. Co.	"	18,000	Hand	25	2	Ingot	700
Liskanett Mining Co.	"	30,000	Horse	25	25	Native Copper	7,500
American Mining Co.	"	3,000	Horse	15	½	Native Copper	190
Ontonagon Mining Co.	"	15,000	Hand	20			
Sistagna Mining Co.	"	3,000	Hand	10			
Chesapeake Mining Co.	"	5,000	Hand	10			
Minnesota Mining Co.	"	29,000	Steam & horse	80	257	Native Copper	77,100
Algonquin Mining Co.	"	2,400	Hand	28			
Ridge Mining Co.	"	5,000	Horse	16	5	Native Copper	1,250
Adventure Mining Co.	"	15,000	Horse	16	8	Native Copper	2,000
Forrest Mining Co.	"	15,000	Horse	30	5	Native Copper	1,000
Ohio Trap Rock Mining Co.	"	15,000	Horse	10	10	Native Copper	2,500
Merchant's Mining Co.	"	2,000	Horse	1			
Total,		$618,760		789	1,525½		$386,960

IRON MINES.

Name of Company.	Capital Invested	Tons of Iron Ore.	Value of raw material.	Kind of motive power.	No. hands employed.	Tons Pig Iron, &c.	Value of product.
Kalamazoo Company,	$14,000	1,890	$2,362	Water	10	630	$16,000
Union City Iron Company,	15,000	2,700	7,000	Water	25	600	*15,000
Total,	$29,000	4,590	$9,362		35	1,230	$37,000

*This is in addition to 100 tons of stoves, valued at $6,000.

The present condition (February, 1853) of the mines is spoken of as highly favorable. "Cliff mine continues to produce masses of nearly pure copper of from one to eighty tons. This mine pays a net profit of about $18,000 per month. In the Hill Mine there are at present two masses of pure copper, each exposed more than twenty feet in depth, and are from six to thirty inches thick. Their length is unknown. In the Copper Fall Mine, there is a vein two and a half feet wide, one large mass, and the entire vein thoroughly filled with the native copper. In Dana Mine, the ten fathomed level produces small pieces, barrel, and stamp ore. North-western Mine is producing more mass copper than it has at any previous time, and a large amount of barrel and stamp copper. Native Copper Mine has produced several tons of small mass, barrel, and stamp copper. Isle Royale Mine, of Portage Lake, continues to produce masses from 1500 lbs. downwards. At the North-west Mine they are opening and extending their work preparatory to extensive operations. Some eight or ten other mines have recently been opened on Lake Superior, mostly with New York capital, all of which are very promising." Before many years are past, this region will be, as regards copper and iron, what California is as regards gold.

Judging by the present, the future destiny of Michigan is ordained to be prosperous. The climate compels activity of mind and body; nature has bestowed everything that industry can require, and lying midway between the Great West and the Atlantic Ocean, produce and merchandize to a vast extent must pass through and round the State. We conclude with the motto of the republic: "*Si quæris peninsulam amœnam, circumspice.*"

We are indebted to the politeness of Mr. Hyde, collector of the customs at the port of Detroit, for the following statistics for the year 1852, which he caused to be prepared at our request.

Imports of goods into Detroit paying duty,	$109,976 08
" " free of duty, chiefly emigrants' effects,	82,823 09
Exports of domestic goods,	273,417 93
" of foreign goods,	6,143 15
Tonnage from Canadian ports entered, tons,	77,222 60
" to Canadian ports, cleared,	78,451 64

Tonnage, internal or coastwise trade entered,	767,885 64
Tonnage, internal or coastwise trade cleared,	821,114 50
Number of American vessels cleared to Canadian ports,	44
" " " entered from "	6
" foreign vessels cleared to Canadian ports,	238
" " entered from "	255
" American vessels cleared coastwise,	2,119
" " entered "	2,008

Tonnage belonging to the District, viz:

	Tons.
Of steam vessels, including propellers,	18,620.00
Of sail vessels,	21,242.80
Of sail vessels under 20 tons, probably about,	500.00
Total tons,	40,362.80

Of sail vessels under twenty tons, no account is kept, and the outstanding tonnage can only be guessed at.

The register of outstanding tonnage of steam vessels exhibits a much larger amount than is given above; but many of the vessels still retained on the register are known to be lost or out of service. The actual existing tonnage in service is given in the above table.

Duties collected during the year 1852, $30,055 92.

Lake trade of the United States (from the *Patent Office Report*, 1850-1—"*Agricul.*" p. 531.)

The following table affords a good idea of the magnitude of a portion of the internal trade of the United States. The aggregate valuation of our lake trade for the year 1850 (imports and exports) amounts to the large sum of $186,484,905; or more, by $40,000,000, than the whole foreign export trade of the country. The aggregate tonnage employed on the lakes of the United States is equal to 203,041 tons, of which 167,137 tons is American, and 35,904 tons British.

The commerce of Lakes Erie, Huron, Michigan, Ontario, Champlain, and St. Clair, is as follows:

Total Value of Exports and Imports.

Erie,	$115,785,048
Huron,	848,152

Michigan,	$24,320,481
Ontario,	28,141,000
Champlain,	16,750,700
St. Clair,	639,524

Showing a total value of $186,484,905. To this must be added the passenger trade of the lakes, valued at $1,000,000.

The aggregate value of the tonnage of Lake Erie is $5,308,085; of Lake Huron, $75,000; of Lake Michigan, $564,435.

STATISTICS OF DETROIT, 1855.

The following interesting Notes and Statistics were prepared by R. E. Roberts, Esq., of Detroit, and by his permission we copy them from his "Sketches of Detroit:"

CITY STATISTICS, 1855.

The following is a recapitulation of the Statistics of the City, prepared and reported to the Board of Water Commissioners, by their Secretary, June 30th, 1855, at which time the City contained:

Families,*	6,328
Offices,	175
Boiler Manufactories,	4
Saw Manufactory,	1
Tanneries and Morocco factories,	9
Potteries,	2
Soda and Small Beer factories,	5
Jail,	1
Fire Engine Houses,	9
Private Meat Markets,	24
Stone and Marble Works,	10

*This number more properly represents the number of House keepers than the number of Families. The number is made up from those assessed for water, and where families are boarding with others or in boarding houses and taverns, they are not set down. The number of families boarding is unusually large at present in this city, in consequence of the scarcity of dwellings to rent; the assessor found but 23 in the whole city at the time he went through it, and he passed through every street, and several of these were vacant to repair. This number of families he estimates would average, including single persons, (of which there is a much greater proportion than in eastern cities,) and the families boarding, at eight each, which would give a population at that time in the city of 50,624.

Stationary Steam Engines, ... 46
Rectifying Distilleries, ... 2
Stores, ... 335
Mechanic Shops, ... 343
Railroad Car factories, ... 2
Saw mills, ... 6
Plaster mill, ... 1
Bakeries, ... 21
Dye Houses, ... 5
Churches, ... 28
Hospital, ... 1
Private Schools, ... 24
Railroad Depots, ... 2
Breweries, ... 17
Malt Houses, ... 2
Boarding Houses, ... 131
Taverns, ... 49
Iron Machine Shops, ... 10
Locomotive Manufactories, ... 2
Flour Mills, ... 3
Steam Tobacco factories, ... 6
Gas Works, ... 1
Printing Offices, ... 11
Banks, ... 4
Orphans' Homes, ... 2
Public Markets, ... 2
Soap and Candle factories, ... 9
Public Street Sprinklers, ... 2
Groceries, ... 260
Iron Founderies, ... 7
Steam planing, door, sash, blind and furniture factories, ... 12
Burr Mill Stone factory, ... 1
Water Works, ... 1
Public Halls, ... 9
Theatres, ... 2
Public Schools, ... 25
Warehouses, ... 24

Lard Oil factory,.....1
Wheat Elevators,.....2
Public Bathing Establishments,.....4

The above includes those only within the city limits, while within a mile above and below there are, say 700 families, several saw mills, tanneries, breweries, a copper smelting works, dry dock, &c., &c., all of which are to be taken into account, when estimating the business, &c., of the city.

The number of families residing in the several Wards of the City, July 1st, 1855, were as follows:

First Ward,	667
Second Ward,	229
Third Ward,	530
Fourth Ward,	977
Fifth Ward,	817
Sixth Ward,	1,159
Seventh Ward,	1,065
Eighth Ward,	884
Total,	6,328

The number of families residing in the lower or western district of the city, comprising the 1st, 2d, 5th and 8th Wards, was 2,597.

The number of families residing in the upper or eastern district, comprising the 3d, 4th, 6th and 7th Wards, was 3,731.

The increase of number of families in the City, for the year ending July 1st, 1855, was as follows:

In the lower or western district, comprising 1st, 2d, 5th and 8th Wards, as follows:

First Ward,	14 Families.
Second Ward,	5 "
Fifth Ward,	87 "
Eighth Ward,	97 "
Total,	293 Families.

In the upper or eastern district, comprising the 3d, 4th, 7th and 6th Wards, as follows:

Third Ward,	1	Family.
Fourth Ward,	34	Families.
Sixth Ward,	164	"
Seventh Ward,	173	"
Total,	372	Families.
Total increase in City,	575	"

FLOUR.

The receipts of flour in this city via the Michigan Central Railroad in 1855, show an increase of 27,705 bbls. over 1854; the receipts for 1855 being 361,356 bbls., and for 1854, 333,651 bbls. The receipts by the Detroit and Milwaukee Railway, and teams from the surrounding country, we have not the means of ascertaining, but a very close estimate may be formed. The shipments during the year were 640,393 bbls., to which add 70,000 bbls. for the consumption of the city, (which is probably an under estimate,) and we have 710,392 bbls. for the actual receipts. From this amount subtract the receipts by the Michigan Central Railroad, and the remainder, 349,037 bbls., will not vary far from the receipts by teams and by the Detroit and Milwaukee Railway. The shipments of flour from this port in 1855, show a large increase over the shipments of 1854, as may be seen by the following:

	Bbls.
1855,	640,393
1854,	337,143
Increase,	303,250

This increase is easily accounted for by the fact, that in 1854 the crop in the western States was a short one, while in 1855 it was most abundant, and a larger proportion of the crop was manufactured into flour before being shipped, than in former years. Owing to the injury which the wheat crop received by wet weather during the time of harvest, the transactions in flour at this point during the year, were considerably less than in 1854, and a larger proportion was sent forward on the owner's account. Notwithstanding this, the market was, as a whole, steady and active, and prices ranged higher than during the previous year. The highest prices paid were in June, when good Michigan flour sold at $9 50a9 75 per bbl. In September there was a decline to a

pretty low figure, but it remained so only a few days, when a reaction took place, and the tendency then continued upward until towards the close of the season, when it again declined, and at the last of December the lowest prices of the year were reached.

The following table will show the prices of flour in this market on the 1st and 15th of each month for the past three years:

	1853.	1854.	1855.
January 1st,	$4 25a4 30	$6 90a6 12	$7 75a8 00
" 15th	4 25a4 30	6 12a6 25	7 75a7 87
February 1st	4 12a4 25	7 12a7 25	7 75a7 87
" 15th	4 00a4 06	7 00a7 12	7 75a7 87
March 1st	4 00a4 06	6 12a6 25	7 75a7 87
" 15th	3 95a4 00	6 25a6 50	7 75a8 00
April 1st,	3 75a4 00	6 25a6 50	8 00a8 12
" 15th	3 90a4 00	6 50a6 75	8 62a8 75
May 1st	3 87a4 00	7 25a7 50	9 25a9 50
" 15th	3 87a4 00	8 12a8 25	9 37a9 50
June 1st	4 15a4 20	8 37a8 62	9 37a9 50
" 15th	4 12a4 20	8 75a9 00	9 50a9 75
July 1st	4 00a4 06	7 75a8 00	9 25a9 50
" 15th	4 12a4 20	6 50a7 00	8 75a9 00
August 1st	4 25a4 37	7 75a8 00	8 50a8 75
" 15th	4 65a4 75	7 75a8 00	8 50a8 75
September 1st	4 70a4 75	8 50a9 00	7 00a7 50
" 15th	5 25a5 33	7 87a8 00	6 25a6 75
October 1st	5 40a5 50	6 50a6 75	6 50a6 75
" 15	5 70a5 75	7 00a7 50	7 00a7 25
November 1st	5 62a5 70	7 87a8 00	7 50a7 62
" 15th	5 75a6 00	7 50a7 75	7 37a7 50
December 1st	5 75a6 00	7 75a8 00	7 50a7 62
" 15th	5 62a5 75	7 50a7 75	6 25a6 75
" 31st	6 00a6 12	7 75a8 00	6 25a6 50

WHEAT.

The shipments of wheat from this port for the last two years are as follows:

	Bushels.
1854	897,159
1855	737,880
Decrease,	159,279

This decrease is partially owing to the fact as above stated, that a larger proportion of the crop was manufactured before being shipped than in previous years. The unmerchantable condition of the wheat during the fall months, when the greater proportion of the crop is generally marketed, also caused a large falling off in shipments. The receipts of wheat per Michigan Central Railroad in 1854, were 644,949 against 246,534 bushels in 1855, showing a falling off of 298,415 bushels, or nearly one half. The receipts by the Detroit and Milwaukee Railway were larger than ever before, as the road was opened in October to Fentonville, twenty-five miles beyond its former terminus, and the crop in the northern counties being in a much more marketable condition than in any other part of the State, a larger proportion found its way to market before the close of navigation. The market has been considerably depressed during the entire year, considering the large crop; although prices have ruled high. Wheat, as well as flour, ruled higher during the year 1855 than during any previous year since 1838. In the fall of 1838 the highest market price for wheat was $2 25 per bushel, and during June last the same high price was reached. These are the highest prices ever paid for wheat in Michigan. In 1842, and a number of years thereafter, wheat was a perfect drug upon the market. The lowest market price ever reached in Michigan, was in the fall of 1842, when wheat was sold by the farmers at 44 cents per bushel, and in many instances taking "store pay" at that.

The following table exhibits the price of wheat in this market upon the 1st and 15th of each month, for the past three years:

	1853.	1854.	1855.
January 1st	90a1 00	$1 30a1 35	$1 65a1 75
" 15th	90a1 00	1 37a1 40	1 75a1 80
February 1st	90a1 00	1 56a1 62	1 75a1 80
" 15th	85a 95	1 56a1 62	1 70a1 75
March 1st	85a 95	1 40a1 45	1 65a1 70
" 15th	85a 90	1 35a1 40	1 65a1 70

April 1st	80a	85	1	25a1	30	1	70a1	75
" 15th	87a	90	1	30a1	35	1	90a2	00
May 1st,	90a	98	1	50a1	56	2	00a2	12
" 15th	96a1	00	1	75a1	87	2	12a2	25
June 1st	96a1	00	1	75a1	80	2	12a2	25
" 15th	96a1	00	1	87a1	90	2	12a2	25
July 1st	96a1	00	1	50a1	55	2	12a2	25
" 15th	98a1	03	1	30a1	35	2	00a2	12
August 1st	98a1	05	1	35a1	40	1	80a1	90
" 15th	1 00a1	05	1	45a1	50	1	60a1	75
September 1st	1 05a1	10	1	75a1	80	1	25a1	30
" 15th	1 10a1	15	1	55a1	60	1	18a1	30
October 1st	1 13a1	18	1	38a1	45	1	20a1	40
" 15th	1 20a1	23	1	40a1	45	1	35a1	62
November 1st	1 18a1	24	1	75a1	80	1	45a1	62
" 15th	1 30a1	35	1	63a1	75	1	35a1	50
December 1st	1 20a1	25	1	75a1	80	1	45a1	62
" 15th	1 25a1	30	1	62a1	65	1	45a1	62
" 31st	1 30a1	35	1	63a1	70	1	25a2	50

CORN.

The receipts of corn by the Michigan Central Railroad during 1855, were 365,741 bushels less than during the previous year, while the shipments from this point eastward were considerably greater. There was, however, at the opening of navigation last year, a large amount of corn in store here, which had accumulated through the winter, while at the present time the stock is very small. The following figures will show the shipments eastward for two years:

	Bushels.
1855	629,895
1854	587,489
Increase in 1855	42,405

Michigan is not so great a corn-growing State as some of her sister States in the west, therefore the amount of corn which changes hands in this market, is small in comparison with some of the other Lake cities. A large proportion, however, of the shipments eastward change

hands at this port. There has been a good home demand during the year, and prices reached a higher figure than for many years previously. The table which follows shows the prices upon the first and fifteenth of each month during the year. The inside figures exhibit the prices for shipping parcels:

	1853.	1854.	1855.
January 1st	48a50	46a52	55a60
" 15th	48a50	46a52	60a65
February 1st	50a52	55a60	60a65
" 15th	48a50	55a60	60a65
March 1st	48a50	54a60	60
" 15th	48a50	54a60	60
April 1st	48a50	54a60	60a62
" 15th	48a50	55a58	65a70
May 1st	52a54	56a60	78a80
" 15th	56a60	55a58	83a85
June 1st	56a60	57a60	83a85
" 15th	56a58	57a60	80a83
July 1st	53a56	57a60	77a80
" 15th	53a56	50a55	75a77
August 1st	60a64	50a54	73a75
" 15th	63a67	50a54	70a74
September 1st	63a66	56a60	70a73
" 15th	65a68	60a62	67a70
October 1st	65a68	60a62	67a70
" 15th	68a72	60a62	75a80
November 1st	55a60	60a62	75a80
" 15th	55a60	60a62	75a80
December 1st	55a60	58a60	70a75
" 15th	50a58	58a60	65a70
" 31st	46a52	55a60	58a62

OATS.

In consequence of a light crop of oats in 1855, the shipments from this port were very light, being 147,659 bushels less than in 1854. The receipts by the Michigan Central Railroad were 180,152 bushels less. The home demand is growing larger with each succeeding year,

and whenever there is a light crop it precludes the possibility of shipping to any considerable extent. Owing to a light stock remaining over from 1854, prices opened high at the commencement of the season, and continued to advance until August 1st, when the high price of 60 cents per bushel was reached. From that time prices began to decline, and the downward tendency continued until September, when 30 cents was the ruling figure. Again the tendency was upward, and at the close of the year prices were the same as at its commencement. The following table exhibits the prices on the 1st and 15th of each month for the past three years:

	1853.	1854.	1855.
January 1st	45	34	35
" 15th	37	34	38
February 1st	40	40	37
" 15th	37	37	38
March 1st	37	36	38
" 15th	37	36	38
April 1st	37	35	40
" 15th	38	35	45
May 1st	42	37	56
" 15th	44	40	56
June 1st	44	43	56
" 15th	43	40	56
July 1st	41	40	56
" 15th	38	38	54
August 1st	44	37	60
" 15th	47	37	56
September 1st	37	36	30
" 15th	37	36	30
October 1st	37	40	30
" 15th	37	40	32
November 1st	37	40	32
" 15th	34	37	35
December 1st	36	37	40
" 15th	36	35	37
" 31st	34	35	35

BUTTER.

Although the soil and climate of Michigan are eminently adapted to grazing and dairy purposes, yet but little attention is paid to butter making. The raising and marketing of wheat, coarse grains, vegetables and wool, seem to absorb almost the entire attention of the farming community. The receipts by the Central Railroad for 1855 are shown to be 715,623 lbs., against 418,613 lbs., showing an increase of 297,010 lbs. The shipments in 1855 exceed those of 1854 by 2,825 kegs and firkins, and three barrels. The following table exhibits the wholesale prices of firkin and roll butter for three years:

	1853.	1854.	1855.
January 1st,	15a18	18a24	16a22
" 15th	13a17	16a22	16a22
February 1st	12a16	15a20	16a20
" 15th	12a16	14a18	15a20
March 1st	12a16	14a19	13a20
" 15th	12a16	14a19	13a20
April 1st	12a15	14a18	13a20
" 15th	12a14	14a18	13a20
May 1st	12a15	14a18	15a20
" 15th	13a17	13a17	14a19
June 1st	13a17	12a16	14a18
" 15th	12a15	11a15	13a17
July 1st	10a14	12a18	13a17
" 15th	10a14	12a18	12a16
August 1st	10a15	12a18	12a16
" 15th	10a15	12a18	12a16
September 1st	11a16	15a20	13a18
" 15th	15a20	15a20	14a20
October 1st	15a20	15a20	15a20
" 15th	18a22	15a20	16a22
November 1st	18a22	15a20	16a20
" 15th	18a24	15a20	16a20
December 1st	18a24	15a20	16a20
" 15th	18a24	15a20	17a23
" 31st	18a24	16a20	17a23

PORK AND HOGS.

During the pork packing season of 1854–5, a greater quantity of pork was packed in this city than usual, and the shipments eastward during the ensuing season exceed those of the previous season by 21,983 bbls., while the receipts by the Central Railroad show a falling off of 9,371 bbls. Prices of dressed hogs were low, and as mess pork rapidly advanced after the close of the packing season, dealers were enabled to realize large profits. During the packing season, pork could be had at $13@$14 per bbl. In October the price had reached $24, being an advance of $9 per bbl. During the season just closed, owing to the very high prices of dressed hogs, but little pork has been packed in this market, and as a consequence the supply will mostly have to be drawn from other places. The following table exhibits the prices of mess pork for three years:

	1853.	1854.	1855.
January 1st,	$16 50	$13 50a14 00	$14 00a14 50
" 15th,	16 75	13 50a14 00	14 00a14 50
February 1st,	16 75	14 00a14 50	14 00a14 50
" 15th,	16 50	14 50a15 00	14 00a14 50
March 1st,	16 50	14 00a14 50	13 00a14 00
" 15th,	16 50	13 50a14 00	13 00a14 00
April 1st,	16 50	13 50a14 00	13 00a14 00
" 15th,	16 50	14 50a15 00	14 00a14 50
May 1st,	16 50	14 50a15 00	16 00a16 50
" 15th,	16 50	14 50a15 00	16 00a16 50
June 1st,	16 00	14 50a15 00	17 50a18 00
" 15th,	15 50a16 00	14 00a14 50	17 50a18 00
July 1st,	15 50a16 00	14 00a14 50	19 50a20 00
" 15th,	15 50a16 00	13 50a14 00	20 00
August 1st,	16 00	14 00a14 50	20 00
" 15th,	16 00	14 00a14 50	20 00
September 1st,	16 00	14 00a15 50	21 00
" 15th,	16 00	14 00a14 50	21 00
October 1st,	16 00a16 50	14 00a14 50	24 00
" 15th,	16 50a17 00	14 00a14 50	24 00
November 1st,	16 50a17 00	14 00a14 50	24 00

November 15th,	16 50a17 00	14 00a14 50	21 00
December 1st,	16 50a17 00	14 00a14 50	21 00
" 15th,	13 50a14 00	13 50a14 00	20 00
" 31st,	13 50a14 00	14 00a14 50	20 00

In 1855 the receipts of dressed hogs by the Central Railroad were 10,487,942 lbs., against 5,028,396 lbs. in 1854, showing an increase in receipts in 1855 of 5,459,546 lbs., considerably over one-half. The shipments are shown in numbers and not in lbs. The shipments for two years were as follows:

	No.
1855,	31,119
1854,	8,483
Increase in 1855,	22,666

The increase, it will be seen, is nearly three times as great as the total shipments of 1854. The number of live hogs received at this port has also been immense. The number passed through this place during the year was 122,030. The following table shows the prices of dressed hogs during the packing season for the past three years:

	1853.	1854.	1855.
January 1st,	$6 25a6 37	$4 25a4 50	$4 25a4 50
" 15th,	6 25a6 50	4 12a4 50	4 37a4 50
February 1st,	6 25a6 75	5 00a5 25	4 44a4 75
" 15th,	6 37a6 75	4 50a5 00	4 25a4 75
March 1st,	6 50a6 75	4 50a5 00	4 50a5 00
November 1st,		5 00a5 50	6 50a7 00
" 15th,		4 50a5 50	6 50a7 00
December 1st,	4 87a5 00	4 00a4 25	6 50a7 00
" 15th,	4 25a4 50	3 75a4 00	6 15a6 50
" 31st,	4 25a4 50	4 25a4 50	5 87a6 25

WHITE FISH.

One of the largest and most important items in the commerce of Detroit is the trade in white fish. From the head of Lake Erie to the head of Lake Superior, including Lake Michigan, during the Fall and Spring months the fisheries form an important branch of our Western

Commerce. But probably there is no place of the same area along our lakes and rivers which is so valuable in this particular as the river contiguous to this city. From Fighting Island to the northern point of Belle Isle, a distance of seventeen miles, there is one complete fishery, from which large numbers of fish are yearly taken. The cost of taking them, when the run is fine, is very light, and fishermen realize large profits. They are known through all the States, and are esteemed among the choicest delicacies to be had in any market. The large demand creates a corresponding valuation, and in every city they become the first brand of fish sought. The river fish are generally larger, fatter and better flavored than those of the Lakes, and are therefore always in better demand, and always command better prices. In New York, in Boston, in New Orleans, and even San Francisco, the Detroit River White Fish are eagerly sought for.

The catch of the past season was remarkably good; at the fisheries (about fifty in number) between Fighting Island and Belle Isle, over 7,000 barrels, or some 700,000 fish, have been taken. About half of these have been sold fresh at an average of eleven cents each, bringing in a revenue of $38,850. The remaining portion are mostly held by the fishermen until navigation shall open to them the eastern and southern trade. These 3,500 barrels, when sold, will net the holders about $30,000, or in the neighborhood of eight or nine dollars per bbl. The cost of catching, cleaning, packing and shipping, have been far less this season than on many previous years, and therefore the profits will be much greater, because the demand will not be at all diminished. From the fisheries upon Belle Isle, about 7,000 fish were taken, a majority of which were sold fresh. The remainder of them were caught below the city, mostly upon the American side of the river.

The method of catching fish here in the river differs somewhat from the means adopted for lake fishing. There gill nets are the principal agency employed, while seines are the instruments here used.

A correspondent of the New York Herald, writing from Wyandotte, a few miles below this city, says: "The number of barrels caught annually in the lake fisheries is nearly as follows:

Lake Superior,	3,000 bbls.
Lake Michigan,	15,000 "

Lake Huron,	14,000 bbls.
Lake Erie,	3,000 "
	35,000 "
Detroit River white fish,	7,000 "
Total,	42,000 "

"These are sold at an average price of $11 per barrel—the aggregate amount of sales being $462,000, or nearly half a million dollars. Probably one-sixth of all the fish caught in Lakes Michigan, Huron and Superior, are trout—the remainder being white fish. They are commonly caught by "gill nets," set some ten miles distant from the shore. Large quantities of fish are taken from Detroit river, which they ascend from Lake Erie, to spawn. On their return to the Lake, they are captured. The number of fisheries on the river is fifty.

"In some of the rivers that flow into the Lakes, enormous quantities of pickerel are caught. Not less than 1,000 barrels are taken annually from Fox River, Wisconsin; from Saginaw River, Michigan, 1,500 barrels; St. Clair River, Michigan, 1,500 barrels; Maumee River, Ohio, 3,000 barrels, and an equal quantity of bass, mullet, &c., making a total of 10,000 barrels, which are sold for $8 50 per barrel, or $85,000 in the aggregate. The annual product of the Lakes and tributary rivers is thus shown:

	Bbls.	*Value.*
The Lakes,	35,000	$385,000
Detroit River,	7,000	77,000
Other rivers,	10,000	85,000
Total,	52,000	$547,000

The writer of the above, although a practical fisherman, undoubtedly shoots wide of the mark in some of his estimates. He puts down the average price per bbl. at $11, which is all of $2 per bbl. *too high.* The average price of white fish, from first hands, at this point, cannot safely be estimated at over $9 per bbl., while the other varieties of fish, such as pickerel, trout, siscowet, herring, &c., (of which there are large numbers caught,) are uniformly from one to two dollars per bbl. less.

He also estimates the total annual catch of fish in all the lake and river fisheries, at 52,000 bbls. This estimate is considerably too low.

One firm in this city handled during last year 7,000 bbls., which, according to his estimate, would be over one-eighth of the entire catch. The shipments eastward from this port during last year, were 16,797 bbls. The consumption of fresh fish in this city and vicinity is not less than 4,000 bbls. annually, to which add 1,000 bbls. for home consumption of salted fish, and we have nearly one half the above estimate handled in Detroit. We are of the opinion that the entire catch of the lakes and tributary rivers will reach nearly 75,000 bbls., which at an average of $8 50 per bbl. would net the producers $637,500, or about $90,000 more than the above estimate.

WOOL.

The wool clip of Michigan for 1855 has been estimated at 2,948,821 lbs. Of this amount 1,100,000 lbs. were purchased by Detroit dealers, for which the sum of $366,000 was paid, or about an average of 30 cents per lb. The receipts of wool by the Michigan Central Railroad for the last two years, are shown as follows:

	Lbs.
1855,	2,061,101
1854,	1,347,397
Excess in 1855,	713,704

Of the 2,061,101 lbs. received in 1855, all except 346,127 lbs. was received from way stations. The shipments from this port for two years are as follows:

	Bales.
1855,	16,818
1854,	11,838
Excess in 1855,	4,980

The shipments are given in bales, the weight in most instances not being entered on the shippers' books. These bales will vary in weight from 100 to 200 lbs., the most of them, however, weighing from 150 to 200 lbs. each. Estimating them at 150 lbs. each, which is probably a low average, the shipments from this place in 1855 would reach 2,422,700 lbs., nearly as much as the entire clip of the State. Owing to the low prices which prevailed in 1854, a considerable portion of the clip of that season was held over by the farmers; but in 1855, the

prices, although but little higher, seemed more satisfactory, and almost the entire clip, together with what was left in first hands of the clip of 1854, was brought out. The prices of 1855, though not high, were without fluctuation, and it is believed that very little, if any, of last season's clip is now remaining either in first or second hands. The following table will exhibit the prices of wool in this market during the seasons of 1853, 1854 and 1855:

	1853.	1854.	1855.
June 1st,	38a54	20a37	20a31
" 15th,	38a54	20a37	20a34
July 1st,	38a50	20a37	22a36
" 15th,	38a48	20a37	22a37
August 1st,	38a48	20a37	22a37
" 15th,	37a48	20a37	22a37
September 1st,	37a48	20a37	22a37
" 15th,	37a48	20a37	22a37

IMPORTS AND EXPORTS.

The following table shows the amount of some of the principal articles of import at Detroit during the years 1854 and 1855:

	1854.	1855.
Salt, bbls	96,651	79,138
Salt, bags	86,293	69,400
Water lime, bbls	14,932	13,484
Stucco lime, bbls.	60	75
Cement, bbls.	300	
Plaster, bbls.	15,500	10,500
Crude plaster, tons	336	3,000
Pig iron, tons	1,046	1,961
Railroad iron, tons	744	46,643
Coal, tons	25,153	49,136
Lumber, feet	10,053,488	6,885,456
Lath, pieces	2,428,950	2,142,700
Shingles, M	5,100	2,743

The above shows quite a falling off in the receipt of salt, which is accounted for by the fact that the stock now on hand here and through-

out the country is very light—a number of cargoes which were on their way at the close of navigation, not having arrived.

The following table shows the shipments from this port by steam and sail vessels and by the Great Western Railway during the years 1854 and 1855:

	1854.	1855.
Ashes, casks,	1,905	1,983
Ale and beer, bbls.	3,800	2,747
Apples, bbls	2,394	2,275
" bags	73	887
Barley, bushels,	2,529	2,071
Beans, bags	228	582
" bbls.	383	80
Beef, bbls.	4,679	11,070
" tierces		2,284
Butter, bbls.	70	73
" kegs and firkins	2,279	5,124
Beeswax, lbs.	1,000	
" casks	8	11
Buckwheat flour, bags	40	69
Buckwheat, bbls.		17
Broomcorn, bales	382	4,679
Bones, tons		44
Brick, number		46,000
Corn, bushels	587,489	629,895
Corn meal, bbls.	1,880	1,942
" bags	956	2,620
Clover and grass seed, bags	3,079	13,821
" " bbls.	482	205
Cheese, boxes	782	795
" casks	38	43
Candles, boxes		2,103
Cement, bbls.	50	125
Crackers, bbls.	62	79
Cranberries, bbls.	341	364
Cider, bbls.		55
Cedar posts, number		125

Carriages and wagons, number	73	87
Coal, tons	160	1,568
Copper, tons	846	
" bbls.		198
Cattle, head	7,372	16,268
Dried fruit, bbls.	2,239	816
" bags	153	83
Deer skins, bdls.		1,305
Eggs, bbls.	557	492
Empty bbls. and half bbls.	982	3,394
Elm bark, lbs.		27,619
Flour, bbls.	337,143	639,535
" bags		1,715
Fish, bbls	18,595	10,956
" half bbls.		11,082
Furs, packages	524	710
Feathers, bales		13
Fruit and ornamental trees, bdls	569	235
Glass, boxes		1,001
Grindstones, number		1,832
Game, packages	254	130
" tons	30	
Grease, bbls.		96
Ginseng, bales	39	
Highwines and liquors, casks	7,980	7,255
Hides, number	17,103	19,442
Hides and skins, bdls.	1,636	282
Horns, packages	154	83
Hair, bales	212	154
Hemp, bales	462	201
Hops, bales		54
Hay, tons	240	977
Hams and shoulders	9,223	1,451
" " bbls.	1,471	
" " casks	2,330	661
Hogs, dressed, number	8,483	31,119
" live, "	15,411	122,030

Horses, number	22	35
Horse rakes, number	100	
Iron, tons	478	581
Lard, bbls.	6,209	3,804
" tierces		223
" kegs	626	303
Lead, kegs		1,616
" pigs		1,137
Leather, rolls	2,363	2,192
Lumber, feet	19,786,021	21,235,432
Lath, pieces	8,707,237	9,549,900
Molasses, bbls.	459	654
" hhds.		268
Malt, bags	318	558
Miscellaneous merchandize, tons	14,365	19,077
" " packages		41,800
Nails, kegs	873	3,549
Oats, bushels	228,450	80,791
Oil, bb's.,	503	745
Onions, bushels	1,254	1,209
Pork, bbls.	24,668	45,880
" tierces		580
Provisions, bbls.		1,003
Pickles, bbls.	27	111
Plaster, bbls.	318	322
Potatoes, bushels	194,537	64,858
Peas, bags	40	380
Powder, kegs		64
Rye, bushels	5,395	1,552
Rags, lbs.	559,116	15,895
" bales		2,428
Shorts, bags	15,292	5,711
Soap, boxes		2,467
Sugar, hhds.	136	799
" bbls.	1,193	1,822
Salt, bbls.	9,523	10,353
" bags	1,895	5,251

Saleratus, bbls.	65	79
Salts, bbls.	117	
Sheep, live, number	3,364	4,935
" dressed, number	83	79
Sheep pelts, bdls.		1,200
Sour krout, bbls.	233	266
Stone ware, pieces		488
Steam engines, number	27	34
Stoves, number	305	606
Shingles, M	4,685	1,715
Staves, M	359	2,418
Tallow, bbls.	456	1,381
Tar, bbls.		75
Tobacco and snuff, packages	1,358	7,507
Tea, packages		1,328
Turnips, bushels	1,675	367
Vinegar, bbls.	311	479
Varnish, bbls.		165
Wheat, bushels	897,159	736,830
Wool, bales	11,838	16,818
Water and stone lime, bbls.	4,135	2,199
Wheelbarrows, number	295	

The following table exhibits the shipments eastwardly by the Michigan Central Railroad Company for two years. The items are all included in the above table, but the appended table will be of interest as exhibiting the shipments eastward by this company. The articles enumerated were all received over the Central Railroad:

	1854.	1855.
Ashes, casks	310	106
Apples, bbls.		106
Beef, bbls.	1,866	8,365
" tierces		1,785
Butter, kegs	1,341	3,705
" bbls.		68
Broomcorn, bales	382	5,467
Buffalo robes, bales		391

Bacon, boxes		687
Beans, bags		153
Barley, bags	1,124	155
Corn, bushels	148,734	
" bags	117	2,190
Candles, boxes		200
Cattle, head	9,717	13
Cranberries, bbls.		13
Deer skins, bdls.	320	477
Eggs, bbls.	206	354
Elm bark, bdls,		28
Flour, bbls.	122,698	210,162
" bags		1,460
Furs, packages	238	101
Grass seed, bags	3,051	7,694
" bbls,		177
Game, packages	154	130
Ginseng, bales,	89	
Grease, bbls.		96
Highwines, casks	2,812	2,528
Hemp, bales	462	201
Hams and shoulders, casks	2,330	654
" " bbls.	1,471	
" " number		1,159
Hides, dry, number	10,744	9,697
" green "	4,273	2,922
Hides and skins, bdls.		263
Hops, bales		52
Hogs, live, number	19,133	
" dressed, number	7,708	29,397
Hams, casks		8
Leather, rolls	306	65
Lard, bbls.	6,009	3,752
" tierces		109
Lead, pigs		1,066
Miscellaneous packages		7,510
Oil, bbls.		71

Oats, bushels	3,714	
" bags	304	380
Pork, bbls.	20,134	14,962
" tierces		580
Provisions, bbls.		100
Potatoes, bags	2,274	1,184
" bbls.		106
Rye, bags	1,799	441
Rags, bales		140
Shorts, bags	12,855	4,495
Sheep pelts, bdls.	452	1,012
Tallow, bbls.	456	1,205
Tobacco, packages		24
Wheat, bags	32,025	87,600
" bushels	8,148	1,172
" bbls.	198	
Wool, bales	7,050	8,030

THE RIVER.

The Detroit River is 25 miles in length, between lakes St. Clair and Erie, average width one mile, depth 6 fathoms, current 2 miles an hour, and it is estimated that at this velocity at a traverse section, opposite the city, where it is con'racted to about 52 chains, it discharges 190,270,080 cubic feet per hour, or 3,171,168 cubic feet per minute.

There are seventeen islands in the river. The names of these are, "Clay," "Celeron," "Hickory," "Sugar," "Bois Blanc," "Elba," "Fox," "Rock," "Stony," "Grosse," "Turkey," "Fighting," "Mammy Judy," "Grassy," "Mud," "Belle" and "Peach." The two latter are situated a few miles above, and within sight of the city, near the entrance to Lake St. Clair, the largest of which is Belle Isle (formerly Hog Island). Peach Island was the home of Pontiac. Parkman, in his "History of the Conspiracy of Pontiac," says "Pontiac, the Satan of this forest paradise, was accustomed to spend the early part of the summer upon a small island at the opening of Lake St. Clair, hidden from view by the high woods that covered the intervening *Isle au Cochon.

"The king and lord of all this country," as Rogers calls him, "lived

*Now Belle Isle.

in no royal state. His cabin was a small, oven-shaped structure of bark and rushes. Here he dwelt with his squaws and children, and here, doubtless, he might often have been seen, carelessly reclining his naked form on a rush mat, or a bear skin, like an ordinary warrior."

The other fifteen islands are situated within the first twelve miles of the river, after entering it from Lake Erie, some of which are in view of the city, the largest of which is Grosse Isle, on which are a number of large and well cultivated farms. This island is a very popular retreat for citizens of Detroit during the heat of summer. On some of the others there are extensive stone quarries; and on many of these, as well as Belle Isle and Peach, are extensive fisheries, where large quantities of white fish are annually taken. Father Hennepin, who was a passenger on the "Griffin," the first vessel that crossed Lake Erie, in 1679, in his description of the scenery along the route, says, "the islands are the finest in the world; the strait is finer than Niagara; the banks are vast meadows, and the prospect is terminated with some hills covered with vineyards, trees bearing good fruit, groves and forests so well disposed that one would think that nature alone could not have made, without the help of art, so charming a prospect." The streams emptying into the *strait*, are, on the Canada side, the river aux Canards, and on the American shore, the Huron river, Monquagon creek, river Ecorse, river Rouge, May's creek, below the city, and Bloody Run and Conner's creek above.

The villages on the Canada shore, are Amherstburgh, near the entrance to Lake Erie, Sandwich, about three miles below Detroit, and Windsor, directly opposite the city. On the American shore, Gibraltar, opposite Amherstburgh, Trenton, opposite Grosse Isle, and Wyandotte, about ten miles below the city.

Fort Malden is situated just above the village of Amherstburgh, in Canada; and Fort Wayne is situated on the American shore, on the Sand Hill, about three miles below the city.

THE CLIMATE.

The climate of Detroit is temperate; snow falls at from six to eighteen inches deep, and never remains more than a few weeks. The transition from the cold of spring to the heat of summer is rapid; from summer to winter gradual and prolonged. As general characteristics,

the spring is wet and prolonged; summer dry; autumn mild; winter cold and dry. The average temperature in the spring is 50 Fahrenheit; summer 80; winter 20; autumn 60 to 65.

ELEVATIONS.

The elevations of different localities in the city, above the Detroit River, is as follows:

Jefferson Avenue from the Michigan Central Railroad Depot to the east line of the city, at the intersection of different streets:

At Third street,	4 feet.
Second street,	5
First street,	6
Cass street,	18
Wayne street,	25
Shelby street,	28
Griswold street,	28
Woodward avenue,	26
Bates street,	26
Randolph street,	26
Brush street,	26
Beaubien street,	26
St. Antoine street,	27
Hastings street,	29
Rivard street,	31
Russell street,	26
Riopelle street,	23
Orleans street,	20

Lafayette Street:

At Griswold street,	27
Shelby street,	31
Wayne street,	31
Cass street,	31
First street,	31
Second street,	29
Third street,	30
Fourth street,	29
Fifth street,	29

Sixth street,.....28 feet.
Seventh street,.....26
Eighth street,.....25

Fort Street from Woodward Avenue to the west line of the city:

At Woodward avenue,.....23 feet.
Griswold street,.....29
Shelby street,.....33
Wayne street,.....34
Cass street,.....33
First street,.....33
Second street,.....31
Third street,.....27
Fourth street,.....25
Fifth street,.....23
Sixth street,.....21
Seventh street,.....20
Eighth street,.....19

Woodward Avenue from the river to the north line of the city:

At Atwater street,.....6 feet.
Woodbridge street,.....15
Jefferson avenue,.....26
Larned street,.....25
Congress street,.....20
Fort street,.....23
State street,.....26
Grand River street,.....24
Clifford street,.....23
Grand Circus street,.....25
Adams avenue,.....28
Elizabeth street,.....28
Montcalm street,.....29
High street,.....32
Henry street,.....35
Sibley street,.....37
Toll Gate,.....50
North line city,.....58
Gratiot Road at Orleans street,.....45

The country back of the city gradually rises until it reaches at Birmingham, 18 miles from the city, an elevation of 200 feet above Detroit River, and Pontiac, 25 miles north of the city, is 386 feet above the river, and the Detroit and Milwaukee Railroad passes over an elevation of 400 feet between Detroit and Pontiac.

STEAMBOATS AND STEAMBOAT ROUTES.

The Steamboat Walk in the Water, Captain Jedediah Rogers, was the first Steamer that navigated the lakes, and her arrival at Detroit for the first time, was chronicled May 20th, 1819.

The following notice of a trip to Mackinaw, appeared at that date in a New York City paper:

"The swift Steamboat, Walk-in-the-Water, is intended to make a voyage early in the summer from Buffalo, on Lake Erie, to Michilimakinack, on Lake Huron, for the conveyance of company. The trip has so near a resemblance to the famous Argonautic expedition in the heroic ages of Greece, that expectation is quite alive on the subject. Many of our most distinguished citizens are said to have already engaged their passage for this splendid adventure."

The Walk-in-the-Water was advertised to make one trip weekly from Black Rock to Detroit and back, touching at the principal towns on the American shore.

The Walk-in-the-Water was wrecked near Buffalo, in the fall of 1821. Thos. Palmer, Esq., and lady, and Mrs. Felix Hinchman, of this city, were on board at the time. No lives were lost. The Steamboat Superior was built during the following winter, under the superintendence of Captain Rogers, and was launched in the month of May, 1822, and made tri-monthly trips from Buffalo to Detroit during the summer.

This was the commencement of the era of steam in navigation—and now, in 1855, there are times when there is not room at our two miles of wharves for the number of steamers that throng them—many of which are magnificent, and as perfect specimens of steam craft as can be found in the world, and the broad stream is frequently, for miles above and below the city, studded and whitened with the sails of whole fleets of brigs, schooners and sloops.

Steamboats for the conveyance of passengers now leave this city regularly, as follows:

From Detroit to Buffalo, daily.—Three magnificent steamers, consisting of the "Western World," 2,002 tons burden; "Plymouth Rock," 1,991 tons burden; and "Buckeye State," 1,274 tons burden, form a daily line, connecting at Detroit with the M. C. R. R. These boats make the trip on the north shore, and go through without stopping—running time 15 hours.

From Detroit to Port Huron, daily.—The splendid steamers "Forester" and "Ruby," form a daily line. Through by daylight.

From Detroit to Ports on Lake Superior.—Four magnificent steamers, consisting of the "Illinois," "North Star," "Planet," and "Northerner," ply regularly to Ontonagon, and other ports on Lake Superior, passing through the Sault Ste. Marie Canal.

From Detroit to Cleveland, daily.—Steamers "May Queen" and "Ocean."

From Detroit to Sandusky.—Steamer "Bay City"—daily.

From Detroit to Toledo, daily.—Steamers "Dart" and "Arrow."

From Detroit to Ashley.—Steamers "Albion" and "Pearl."

From Detroit to Port Sarnia, C. W.—Steamer "Canadian."

The Steamboats "Transit," "Mohawk," and "Argo," (ferries,) ply constantly between Detroit and Windsor.

Three regular lines of Propellers are established, as follows:

From Detroit to Dunkirk, connecting at Dunkirk with the New York & Erie Railroad.

From Detroit to Buffalo, connecting at Buffalo with the New York Central Railroad and Erie Canal.

From Detroit to Ogdensburgh and Cape Vincent, Lake Ontario, passing through the Welland Canal, connecting with the Ogdensburgh and Vermont Railroad, between Ogdensburgh and Boston, and Cape Vincent Railroad, between New York and Cape Vincent.

Besides these a large number of propellers are engaged in carrying freight to various ports on the Lakes, above and below, and thousands of brigs and schooners arrive and clear during a season.

RAIL ROADS.

The first railways, formed on the plan of making a distinct surface

and track for the wheels, seems to have been constructed near Newcastle, upon the river Tyne, in England. In Roger North's Life of Lord Keeper North, he says that at this place,(in 1676,) the coals were conveyed from the mines to the banks of the river by laying rails of timber exactly straight and parallel; and bulky carts were made with four rollers fitting those rails, whereby the carriage was made so easy that one horse would draw four or five chaldrons of coal. In 1776, Mr. Carr constructed an iron railroad at the Sheffield colliery. The rails were supported by wooden sleepers, to which they were nailed. Railways were afterward used in a number of other collieries, and in 1825 the first railway was successfully adopted on a public thoroughfare for the transportation of merchandise and passengers on the Stockton and Darlington Railroad, in England, 25 miles in length. From that time a new era commenced in the history of railroad transportation, and railroads now extend like a net-work over the greater part of England. The first locomotive engine used as the motive power on railroads, was used on the Liverpool and Manchester Railway in 1830. In 1827 the first railroad in the United States was constructed from Quincy, near Boston, to Neponset river, a distance of three miles. It was constructed solely for the transportation of granite from the quarries. In 1828 the Maunch Chunck Railroad, nine miles in length, was finished. This was constructed solely for the transportation of coal. In 1826 the Legislature of the State of New York chartered the "Hudson and Mohawk Railroad Company," which was the first railroad company chartered in the United States. On the 12th day of August, 1830, the first ground was broken at Schenectady for a double track road to Albany, and the road was in operation the following spring. The cars used were coach bodies, of the ordinary form. The motive power first used was horse, and on steep inclinations stationary steam power. A locomotive engine called "John Bull," procured from England, was placed upon it during that year. The Newcastle and Frenchtown Railroad was constructed in 1829. This road extended from Newcastle, on the Delaware, to the Elk river, near Frenchtown, 16½ miles, and was the first railroad constructed in the United States for the conveyance of passengers. The first engine on a railroad weighed but six tons, while at the present day engines of forty tons weight (including tenders) have been introduced on some roads.

In 1830 there were but 41 miles of railroad in operation in the United States; in 1840, 2,167 miles; in 1850, 8,655 miles; and in 1854, there were 430 railroads in operation, having an aggregate length of 20,619 miles—4,000 miles of which are double track roads. And it is estimated that there are about 13,000 miles more of railroads now in various stages of construction.

The project of a railroad across the Peninsula of Michigan, was agitated as early as 1830, at which time the Legislature of the then Territory of Michigan adopted a memorial to the general government in favor of the establishment of a canal or railroad route from Detroit to the mouth of St. Joseph river, on Lake Michigan.

In 1832 the Legislature incorporated the "Detroit and St. Joseph Railroad Company." In 1834 Lieut. J. M. Berrien, under the authority of the War Department, surveyed the route of the road, and submitted his report to a convention of the friends of the measure, held in Detroit in December of that year. The Directors and Officers of the Company were as follows: Maj. John Biddle, President; Charles C. Trowbridge, Oliver Newberry, Shubael Conant, E. A. Brush, Henry Whiting, J. Burdick, H. H. Comstock, Mark Norris and C. N. Omsby, Directors; John M. Berrien, Chief Engineer; A. J. Center, Assistant Engineer; A. H. Adams, Secretary and Treasurer. The construction of the road was commenced by this company in 1836, who surveyed the road from Detroit to Jackson, and located it to Dexter. This company graded about ten miles of the road, in detached parts, between Detroit and Ypsilanti. They expended for grading, iron, cars, bridges, &c., the sum of $139,702 79. Soon after Michigan was admitted into the Union, the Legislature adopted a grand scheme of internal improvements, and effected a loan of five millions of dollars, for the purpose of constructing public works—railroads and canals. This had the effect to check individual enterprise, and the Detroit and St. Joseph Railroad Company transferred their interests to the State in the year 1837. The State completed and opened the road to Ypsilanti in 1838, to Ann Arbor in 1839, to Jackson in 1842, and to Kalamazoo in 1843. The State constructed the road with the wood and flat bar superstructure as far as Kalamazoo, 143 miles from Detroit, when in 1846 it was purchased from the State by capitalists from New York and New England, for the sum of two millions of dollars, and a charter was granted

them by the Legislature incorporating them a company under the style of the Michigan Central Railroad Company.

MICHIGAN CENTRAL RAILROAD.

The design of the State was to make a road across the Peninsula, only from Detroit to Lake Michigan; but it was at once apparent to the new owners, that with the great and growing west beyond, the ultimate interest of the stockholders—though perhaps temporarily suffering—would be promoted by the construction of a more permanent work, of large capacity, and its extension through the State of Indiana, to Chicago, in Illinois. The charter of the company gave them ample power to extend their road through this State, and the company soon made arrangements with the New Albany and Salem Railroad Company to use their right to build a road from Michigan City to the State line of Illinois, and with the Illinois Central Railroad Company, whereby they were enabled to reach Chicago, which they accomplished in 1852. At Chicago the road connects with nearly 1,500 miles of railway, and their extensive steamboat connections.

The Michigan Central Railroad also now connects with the Joliet and Northern Indiana Road at Lake Station, 35 miles east of Chicago, by which arrangement passengers from St. Louis, can be set down in New York in about forty-eight hours, and freight can be transported between Detroit and the Mississippi River without breaking bulk on the route. At Detroit, the Michigan Central Road connects with the Great Western Railway, from Detroit to Niagara, through Canada West, and with their own line of magnificent steamers on Lake Erie, which pass down the north shore of the Lake, going through without stopping, in 15 hours.

They run four passenger trains through from Detroit to Chicago, daily, and one accommodation train from Detroit to Kalamazoo, 143 miles daily.

The aggregate number of passengers conveyed on the road during the year ending May 31st, 1855, was 503,774, (being 145,838 more than the year previous,) making a daily average of nearly 1700. The aggregate number of tons of freight moved on the road during the same time was 241,825, being an increase over the year previous of 25,265 tons. The earnings of the road for the same time amounted to the

sum of $2,215,283, being $635,871 more than the year previous, and the expenses of the road were for same time $1,335,627 and $431,683 more than the year previous. The net earnings of the road for same time amounted to the sum of $879,656, being $204,180 more than the previous year.

The annual business of the road has increased in the last six years as follows:

In the number of passengers conveyed, from 152,672 to 503,664: in the number of tons of freight moved, from 81,066 to 241,826 tons; in gross earnings, from $691,972 to $2,213,283; and in net earnings, from $390,323 to $879,635. The operating expenses from $301,649 to $1,335,627.

The assets of the company are as follows:

Cost of road including depots,	$10,300,147 03
Stock in Steamboats,	343,880 04
Stock and bonds in other roads,	1,399,763 99
Total,	$12,043,791 06

There are 64 locomotive engines on the road, 11 of which were constructed in the Company's shops in this city, and 4 by the Detroit Locomotive works, and the others at eastern manufactories. There are on the road 57 first and 12 second class passenger cars; 630, 8-wheeled box freight cars; 150, 8 wheeled open cars; 11, 4-wheeled box cars.

Total Passenger Cars, 69.

Total Freight Cars, 1,631.

And 20 gravel dumpers, 70 hand cars, and 60 repair and wood cars.

All the cars of every kind in use on this road were built by the company in their own shops; and the company employ about 1200 men in operating the road and car and engine building.

The population of that section of the State tributary to this road, is 216,852; the number of acres of improved land 844,309; and the product of the district in 1854 was as follows: 3,137,875 bushels of wheat, 3,450,946 bushels of corn, 943,330 bushels of grain, 1,078,244 bushels of potatoes, 86,760,889 feet of lumber; there are 298 saw mills and 93 flour mills in the section. The depot grounds of this company in Detroit, embrace an area of twenty-two acres of land, all

enclosed. They have twenty-six hundred feet of dock front on the river. Along this is their freight depot building, constructed of brick, two stories high, one hundred feet wide and eight hundred feet long. This building can store one hundred thousand barrels of flour. Adjoining this, and fronting on third street, is their Passenger Depot, three hundred and twenty feet long and seventy feet wide; in one end of which are their ticket office, ladies' room, baggage room, &c., on the first floor, and in the second story are the Superintendents' and Treasurers' offices, Engineers' Rooms, Local Superintendent and Cashier offices, and also the general ticket office and duplicate bill department. Below the freight depot there also two large two story warehouses, capable of storing twenty six thousand barrels, and a wheat elevator, constructed of brick, one hundred and twenty feet long, sixty feet wide and seventy-five feet high. Besides these there are within the enclosure an engine house one hundred and thirty-five feet diameter, surmounted with a dome eighty-five feet high, with sixteen apartments for engines; two machine and blacksmith shops, one of which is one hundred and sixty feet long, sixty feet wide and two stories high, in which are twenty-three forges; the other is one hundred and eighty feet long and fifty-five feet wide, having 31 fires, and both furnished with blast from a fan run by a stationary engine. In the second story are a large number of lathes, planing machines, &c., for working iron.

Adjoining is a large shop for building and repairing cars, one hundred and sixty-nine feet long, fifty-five feet wide, and two stories high. All the machinery of this shop and the machine shops is driven by a large stationary engine, placed in a building between the two. There is also between the two a large smoke stack, thirteen feet square and one hundred and fifty feet high, by means of which all the smoke of the shops is carried off by underground flues. There are also lumber, store and other buildings.

This road is second to none in the west in permanency and solidity, or in its conduct and management. It is the pride of our State and city, and has added much to the permanent business of both.

The officers of the company are as follows:

President—J. W. Forbes, Boston.

Vice President—J. W. Brooks, Detroit.

Directors—J. M. Forbes, R. B. Forbes, J. E. Thayer, Geo. B. Upton,

Boston; D. D. Williamson, John C. Green, New York; Erastus Corning, Albany; J. W. Brooks, Elon Farnsworth, Detroit.

Treasurer—Isaac Livermore.

Superintendent—Reuben N. Rice, Detroit.

Local Treasurer—U. Tracy Howe.

Local Superintendent—Charles M. Hurd.

Cashier—Geo. W. Gilbert.

Freight Agent—John Hosmer.

Auditor—E. Willard Smith.

Superintendent Motive Power—S. T. Newhall.

Superintendent Car Work—S. C. Case.

DETROIT AND MILWAUKEE RAILWAY.

The "Detroit and Milwaukee Railway Company" was incorporated by the Legislature of Michigan, in February, 1855, with authority to consolidate the Detroit and Pontiac (incorporated in 1834) and the Oakland and Ottawa (incorporated in 1850) Railroad companies, and the consolidation was consummated on the 21st day of April, A. D. 1855, by which act the property, rights and franchises of the "Detroit and Pontiac" and "Oakland and Ottawa" companies were vested in the "Detroit and Milwaukee Railway Company," and placed under the direction of a Board composed of the following gentlemen:

President—Henry N. Walker.

Vice President—Henry Ledyard.

Directors—H. P. Baldwin, B. Wright, E. A. Brush, E. B. Ward, Detroit; W. M. McConnell, Pontiac; H. P. Yale, Grand Rapids.

Secretary and Treasurer—C. C. Trowbridge.

Chief Engineer—R. Higham.

Names that are a sufficient guarantee to the public to insure the success of any enterprise they undertake.

The Detroit and Milwaukee Railway is to extend from the city of Detroit to Grand Haven, Lake Michigan, 185 miles, passing through the northern tier of counties of the Lower Peninsula. They are the richest portions of the State, abounding in lumber, plaster, water-lime, coal, salt springs and other valuable elements of wealth. They are also some of the very best farm lands in the State, and yet the least developed, for want of a railway or other available communication commen-

surate with their business requirements. This road, which is now partially completed, and its construction along the entire length rapidly prosecuted, will soon supply their great deficiency and pour their products and that of the valleys of the Shiawassee, the Maple and Grand rivers into the city of Detroit, which is their natural depot and market, at once giving the road a local traffic equal to that of the most favored road in the western States.

The population of that section of the State tributary to this road, in 1854 was 241,164. The number of acres of improved land was 620,004, and the products of the district were as follows: 2,329,389 bushels of wheat, 2,081,695 bushels of corn, 872,881 bushels of grain, 1,140,418 bushels of potatoes, and 350,000,000 feet of lumber. There were at that time 99 flour mills and 352 saw mills in the district.

At Corunna, in Shiawassee county, the road crosses the bituminous coal beds, which have now been tested for four years and found to be of the best quality, and which will be extensively opened when the means of transporting the coal to a market is afforded, which the construction of this road will do.

At Grand Rapids the line passes the gypsum beds, which are extensively worked now, and will form a large item of freight on this road, to supply the wheat growing counties contiguous to it.

This road when finished, will be a complete work in itself, extending across the entire State, from the straits which connect Lakes Erie and St. Clair, at the city of Detroit, the commercial capital of the State, to Lake Michigan, and might rely solely upon the resources of the contiguous territory along the line for support, but its position as part of the great northern trunk line, from Boston, New York and Montreal, to the Mississippi River, and finally from thence to the Pacific Ocean, gives it in a measure a national character, and secures a large amount of thro' traffic between the country west of Lake Michigan and the east. The distance by this road, between New York and Milwaukee, is 106 miles shorter than by any other route.

At Detroit the road forms a connection with the Great Western Railway from Detroit to Niagara Falls through Canada West, and from thence by several different routes to the cities on the seaboard, both in the States and Canada.

At Grand Haven on Lake Michigan a connection is formed by steam

ferries across the Lake to Milwaukee, connecting with the five different railroads terminating in that city, extending west to the Mississippi River, to-wit: The "Milwaukee and Mississippi," to Prairie du Chien, the "Milwaukee and La Cross," the "Racine, Kenosha and Beloit," the "Manitowoc and St. Paul's," and the "Milwaukee and Dubuque," or Galena Railroad, and also with roads running north to Lake Superior. The road from Detroit passes through the villages of Royal Oak, Birmingham, Pontiac, Waterford, Rose and Holly, in Oakland county; Fentonville, Linden and Gaines, in Genessee county; Owosso and Corunna, in Shiawassee county; St. Johns, in Clinton county: Lyons, Ionia and Flat River, in Ionia county; Grand Rapids, in Kent county, to Grand Haven in Ottawa county.

At the last session of Congress a bill was introduced to donate public lands for the purpose of constructing a railroad running north, connecting with this road at Fentonville, to Saginaw and the Straits of Mackinaw, thence to the Sault Ste. Marie's, and from thence through the mineral regions of Lake Superior to Montreal River. And another to Marquette River in the county of Mason on Lake Michigan, connecting by steamboats across Lake Michigan to Manitowoc, Marquette, Eagle Harbor and Ontonagon, on Lake Superior. The growing importance of the mining interests on Lake Superior, render a road desirable, and its construction will be required at no distant day, which will furnish to the Detroit and Milwaukee road an amount of business not easily appreciated. The Detroit and Milwaukee company received from the Detroit and Pontiac company, twenty-five miles of road, from Detroit to Pontiac, which had recently been re-constructed in the best manner, and which was stocked with five locomotives, four passenger cars, and forty-eight freight cars. The road is completed to Fentonville, 51 miles from Detroit, and it will, during the present month, be opened to Corrunna, 50 miles beyond Pontiac, when 75 miles of the road from Detroit will be in operation. Twenty-six hundred tons of iron have recently been received by the company, and the grading and superstructure of the road is rapidly progressing, and the road bed will be ready for the rails as far as Lyons, 123 miles from Detroit, by the first of December next. The estimated cost of the road from Detroit to Lake Michigan is $6,192,050.

The depot grounds of the company in the city of Detroit are located

in the centre of the city on the river, and cover an area of about twelve acres. They have sixteen hundred and fifty feet of dock front on the river. On these grounds there are two large store houses, freight sheds, an engine house for six locomotives, machine shop, smith shop, wood sheds, water tank, &c.

The construction of this road will bring to the city of Detroit, an amount of business not easily appreciated, and its completion is paramount to every other of the many projected improvements, for the interests and prosperity of the city.

THE GREAT WESTERN RAILWAY.

This popular road, which was opened in January, 1854, extends from Windsor, opposite Detroit, through the cities of Chatham, London and Hamilton, to Niagara Falls, 229 miles, crossing the Niagara River on the great Railway Suspension Bridge, acknowledged by all to be one of the wonders of the world, and connecting with the New York Central and New York and Erie Railways, for New York, Boston and all intermediate places. It also connects at Hamilton, with railway and steamers to all ports on Lake Ontario and the River St. Lawrence, and with the Great Western International Line of Steamers for Oswego, which form one of the quickest, and certainly the most pleasant route now open to the east—these steamers being fitted up with every regard to comfort and convenience, and being unsurpassed by any steamers upon the inland waters of America.

The construction of the Great Western Railway, has secured for the city of Detroit what was much needed, and which our citizens have long suffered for the want of, namely, a speedy and reliable route to the east, uninterrupted at all seasons of the year.

The Great Western Railway is acknowledged to be one of the best constructed, and most efficiently managed roads on the continent of America, and has already a very large business, both in through and local traffic, both of which are rapidly increasing.

The receipts for the half year ending 31st July, 1855, being,	£239,193
And for the same period in 1854,	150,105
Showing an increase in one year of	£99,088

or upwards of 66 per cent. on the gross traffic of the line.

There are at present 62 locomotives on the road, and 14 more are to be placed on it this fall, making in all 76. There are likewise on the road 45 first class passenger cars, 29 emigrant cars, 12 baggage, mail and express cars, 416 eight wheel and 100 four wheel box freight cars, 122 platform, 56 cattle and 409 gravel cars; in all 1189, at present on the road, which, with 519 now constructing, will make a total of 1708.

The company have lately issued £1,000,000 of new stock, the whole of which has been taken up by the original shareholders, and they intend at once laying another track between Hamilton and London, to enable them to accommodate their vast and increasing business.

The following are the Directors of the company:

President—Robert W. Harris, Esq.

Vice President—John S. Radcliffe, Esq.

Managing Director—C. I. Brydges.

Directors—Henry McKinstry, Esq.; Lieut. Col. Gourlay, Esq.; William Dickson, Esq.; I. B. Smith, Esq.; Alex. Beattie, Esq.; Robert Gill, Esq.; Peter Buchanan, Esq.

Ex-Officio Directors—C. Magill, Esq., Mayor of Hamilton; D. Mathieson, Esq., Warden of Oxford; H. Clench, Esq., Warden of Middlesex.

General Office of the Company, Hamilton, Canada West.

THE DETROIT, MONROE AND TOLEDO RAILROAD.

The Detroit, Monroe and Toledo Railroad, which has existed for many years past only in old charters, projected routes and public assurances, is likely to be constructed without further delay. A company was recently organized under the General Railroad Law of Michigan, and the project placed in the hands of a Board of Directors composed of gentlemen of a character that will insure its speedy construction. The Directors have effected such arrangements that will insure the completion of the road within the next 12 months. This road will pass through the villages of Trenton and Wyandot, and Monroe city, to Toledo, connecting us with the southern tier of counties of this State, from which we have hitherto been excluded, and with the Ohio roads, leading to Cincinnati, and the South Shore Railroad, to Dunkirk and Buffalo; also, with the Michigan Southern road to Chicago.

The foregoing include all the roads that exist or have a name to do

so, but we need others leading to the northern portions of our State. One to Port Huron; one to Saginaw, thence to Mackinaw; also, one from Detroit to Adrian, thence to the State line to connect with the Logansport and Northern Indiana Railroad, which is already extended to within fifteen miles of our State line, passing through the Wabash and Eel River valleys, and connecting with the Mississippi and Atlantic Railroad, forming a direct route to St. Louis, 80 miles less distance from New York than by any other. Let the doors be thrown open wide, and let the citizens of Detroit extend every aid within their power for the construction of roads terminating in the city, wherever they may extend.

LANSING AND SAGINAW RAILROAD.—PRELIMINARY SURVEY, BY WILLIAM WALLACE.

To the President and Directors of the Lansing and Saginaw Railroad Company:

GENTLEMEN—The road in contemplation, as designated by the red line on the accompanying map, commences at Saginaw, on the Saginaw River, twenty miles from its mouth, where it empties into Saginaw Bay, on Lake Huron, and runs thence in a south-westerly direction thirty-three miles, to Owosso, on the Shiawassee River, where a connection is made with the Detroit and Milwaukee, and the Port Huron and Owosso Railways.

This constitutes the first division of your road, and will form an important link in the through route to Detroit, To'edo, and the Ohio and Mississippi Rivers, and the southern States, as well as the eastern cities on the Atlantic sea-board, by the way of Port Huron and the Suspension Bridge or Buffalo. It will also form a link in the through route to Grand Haven, Milwaukee, and the country west.

The second division, which extends twenty-five and a half miles from Owosso, to Lansing, the Capital of Michigan, and the third division, which extends thence through the beautiful town of Charlotte, the county seat and principal market of Eaton county, and Bellevue, another flourishing town, to the M. C. R. R. at Battle Creek, on the Kalamazoo River, forty-three and three-quarter miles from Lansing, constitute another link in the through route to Chicago, the great commercial em-

porium of the west, and the radiating point of numerous railroads which stretch through the whole of the western country.

This you will see is another very important link, as it will, in connection with other lines, open numerous railroad communications to the capital, and complete the most direct route to the northern parts of Canada and the eastern States.

Lansing, the capital of the State, possesses all the elements within herself to warrant the prediction that she will soon become a large inland city. The water privileges which she enjoys on the Grand River, and which are second to none in the State, have already been made available to a considerable extent, and only wait the aid of the great modern invention of transporting persons and property by means of steam, to bring them into full and effective operation. Surrounded also by a rich agricultural country, equal in fertility to the county of Livingston, in the State of New York, she will assuredly become the principal granary of central Michigan.

When the present inefficient means of transit afforded by teaming and staging shall be superseded by the railroad now in contemplation, the traffic will increase beyond calculation. The increase even against the restraining influence of the old method of staging, has, as will be seen by the following statement, been very great, and it is quite evident that nothing short of a railroad will any longer meet the demands of the public.

In 1848, one daily stage coach carried the passengers, and in 1855, ten daily, two tri weekly, and two weekly stages and mail coaches, were required to do the business, and the number of passengers conveyed during the year amounted to over thirty thousand.

It will be seen by the map and profile, that the line is well adapted for high rates of speed, the grades are comparatively light, and the entire distance except three miles, is straight line. The highest elevation to be overcome, which is found about ten miles south of Lansing, is four hundred feet above Saginaw River, at Saginaw, and the heaviest grade is only forty feet per mile. Between Owosso and Lansing there is one forty-foot grade, two miles in length. Between Lansing and Battle Creek there are five forty-foot grades, the longest is two miles, and the aggregate length is four and three quarter miles. Between Saginaw and Owosso, the heaviest grade is twenty-five feet per mile,

and nearly twenty miles of the distance are level, or less than ten feet per mile.

The country generally is favorably adapted to the construction of a railway. From Saginaw to Owosso, it consists for the most part of a plain surface, with large extents of level ground. This extensive plain is intersected by the various tributary streams that flow from nearly every point of compass, and form the Saginaw River. Of these the principal streams crossed by the line surveyed, are the Shiawassee, which may be looked upon as the main or trunk river, the Flint, with its tributaries, the Mishtegayeck, and the Cass. The land is principally timbered with ash, oak, elm, beech, maple, bass, buttonwood, hickory, &c, for the first fifteen miles, where pine land first presents itself. The pine timber is of excellent quality, growing on low sandy ridges, and admitting of easy transport to convenient markets, by means of the streams already alluded to, as well as the Titibawassee, with its feeders, the Pine and Chippewa rivers, and the Bad and Beaver-dam rivers.

A sandy soil prevails to a greater extent between Lansing and Owosso, the surface undulating and consisting for the most part of "Oak openings," except about five miles on the northern portion, which is a clay soil of even surface, extending between the Maple and Shiawassee rivers.

From Lansing to Battle Creek, the line runs for the most part on rolling land, timbered alternately with beech and maple, indicating the presence of clay, and oak openings the growth of a sandy soil.

The Cass, Flint, Mishtegayeck, Shiawassee, Maple, Looking-glass Rivers, Vermillion Creek and Grand River, are the principal streams intersected by the line, all of which can be bridged at a moderate expense. The height of the grade line above the Cass and Flint, will be about six feet above high water mark. The Mishtegayeck, Shiawassee, Looking glass and Vermillion ten feet, and the Grand River twenty-five feet. The aggregate length of bridging will be about twelve hundred and fifty feet.

All who are acquainted with the geographical position of central Michigan, its mineral and agricultural wealth, navigable streams, mill sites, &c., will, I have no doubt, fully realize the importance, the absolute necessity of building the proposed road. That its construction would be of incalculable benefit to the extensive country through which

it is intended to pass, there can be no diversity of opinion, and when I look prospectively at the tide of emigration which cannot fail to flow into it immediately on the completion of the work, and compare the position of this line, favorably connected as it will be with the main leading lines through the States and Canada, with other lines that are paying profitable dividends, I am fully convinced that it will yield a fair remuneration to the stockholders.

Saginaw, situated on the River Saginaw at the head of navigation, is rapidly becoming a place of very considerable importance. The tributaries of the Saginaw run through heavy and very extensive pineries. There have been manufactured and shipped the past season, about one hundred milli n feet of lumber. A large proportion of this would be sent over the proposed road, and find a market in the southern part of this State, and the northern part of Indiana and Illinois. A large, rich, agricultural region, will naturally centre at Saginaw when this road is completed, and find from that point the best and nearest market in the mining districts; in a word, Saginaw will be the great depot of supplies for the mining regions of Lake Superior.

Immediately upon the completion of this work, lines of steamers will, I have no doubt, be established to run in connection with it and Goderich, and other ports on the Canada shore of Lake Huron, which will soon become the termini of lines now in course of construction, to connect with the Grand Trunk, Great Western, and other leading lines through Canada, and when the road in contemplation to Mackinaw is built, which, in connection with your line will form part of the great route to the rich and romantic regions of Lake Superior, the business will increase beyond the expectations of the most sanguine.

The coal fields of Michigan, though as yet submitted to an examination merely superficial, are ascertained to spread over the counties of Calhoun, Barry, Clinton, Ionia, Shiawassee and Genesee, all of which are either crossed by or in the immediate vicinity of the line. This coal has been tested for various purposes; for the heating of furnaces it is said to compare favorably with the Blossburgh coal, and for its illuminating qualities, as far as submitted to actual experiment, reported to be unsurpassed. These coal beds are supposed to embrace an extent of not less than one hundred and forty miles in length, by ninety to one hundred in extreme breadth, and probably covering an area of over

nine thousand square miles, with the centre axis of which the proposed line is not far from coinciding. The value of this amount of mineral fuel must be very great, especially in a State covered to a large extent with sparsely timbered "openings" and prairies, and of which the small lakes, constituting such a remarkable feature in the superficial formation of this Peninsula, cover about one fortieth part. This buried wealth lies useless, on account of the non-existence of proper internal communications. Its extent and capabilities have not been fully investigated, but that the construction of this line would open out a vast field for mining enterprise, and thereby create for itself a constantly increasing traffic, by carrying this now dormant source of wealth to market, there can be no doubt.

The manufacture of salt early engaged the attention of capitalists in this State, and an appropriation has been made by the Legislature for the purpose of promoting and encouraging this branch of productive industry. Individual efforts on an extensive scale, to reach the richest brine springs, have not been wanting, and they were successful so far as to tap springs which yielded a brine furnishing a bushel of salt to eighty-two gallons of the natural water. Though in all probability much richer veins would have been reached by extending the borings to a greater depth, these enterprises have been abandoned avowedly through the want of the means of carrying the material when manufactured to a remunerative market.

From the foregoing brief statement of facts, showing the advantages which the proposed line will possess in a local point of view, developing the great resources of the country through which it will pass, and more generally by the important connections it will make with other lines of railways and steamboats, and the certainty of doing a large share of the immense traffic which is so rapidly increasing between the eastern, western, and southern States and Canada, as well as the vast regions bordering on Lake Superior, which contain more elements of real wealth than the gold mines of California, it must, I think, appear evident to every one who reflects on the subject, that the road will do a large and profitable business.

The owners of real estate along the line of the proposed work, are deeply interested in its construction, and will, I have no doubt, co-operate with the parties who design to embark in the enterprise.

The increase on the value of land in the vicinity of the line will be more than equivalent to the amount of capital required to build it. Ten dollars per acre may be considered a low estimate for the advance that will certainly follow immediately upon the completion of the work, which on a strip the whole distance, three miles in width, would be equal to one million nine hundred and twenty thousand dollars, and this is only a fractional part of the extensive tract of land that will be greatly enhanced in value by the construction of this line.

Respectfully,

Your ob't serv't,

WILLIAM WALLACE,

Engineer.

DISTANCES FROM DETROIT.

Via Michigan Central Railroad.

	Miles.
To Dearborn	10
Wayne	17
Ypsilanti	29
Geddes	34
Ann Arbor	37
Delhi	42
Scio	44
Dexter	46
Chelsea	54
Grass Lake	65
Jackson	75
Parma	86
Albion	95
Marshall	107
Battle Creek	120
Galesburg	134
Kalamazoo	143
Paw Paw	159
Decatur	167
Dowagiac	178
Niles	190

Buchanan	197
Terre Coupee	201
New Buffalo	217
Michigan City	227
Porter	239
Lake	248
Junction	269
Chicago	284
Joliet	294

Via Detroit and Milwaukee Railway.

	Miles.
To Royal Oak	12
Birmingham	18
Pontiac	26
Waterford	34
Rose	42
Holly	46
Fentonville	51
Linden	55
Gaines	63
Corunna	75
Owosso	78
St. Johns	96
Lyons	115
Ionia	122
Flat River	137
Grand Rapids	155
Grand Haven	184

Via Great Western Railway, C. W.

	Miles.
To Belle River	16
Baptist Creek	30
Chatham	45
Thamesville	60
Hagerty's Road	73

Eckford	88
Lobo	100
London	110
Huffman	120
Ingersoll	129
Woodstock	138
Blenheim	147
Paris	158
Fairchild's Creek	167
Dundas	181
Hamilton	186
Stony Creek	193
Grimsby	203
Beamville	208
St. Catharine's	210
Thorold	221
Niagara Falls	230
Buffalo	252

Via Plankroad.

	Miles.
To Trenton	15
Gibralter	20
Monroe	40
Toledo	65

Via Detroit, Howell and Lansing Plankroad.

	Miles.
To Redford	12
Farmington	19
Novi	25
Hickville	30
New Hudson	32
Kensington	34
Brighton	40
Howell	50
Fowler's	59

Le Roy	68
Williamston	70
Okemos	77
Lansing	84
Eagle	94
Portland	106
Lyons	113
Ionia	117
Saranac (per S. B.)	133
Ada	141
Grand Rapids	151

Via Detroit and Saline Plankroad.

	Miles.
To Dearborn	10
Wayne	17
Ypsilanti	29
Saline	40
Clinton	52
Tecumseh	57
Adrian	67

Via Detroit, Mt. Clemens and Almont Plankroad.

	Miles.
To Utica	13
Mt. Clemens	20
Armada	37
Romeo	40
Almont	49

Via Lake.

	Miles.
To Ashley	30
Algonac	40
Newport	48
St. Clair	56
Port Huron	68
Lexington	88

Goderich, C. W.	108
Mackinaw	315
Sault St. Marie	335
Ontonagon	645
Superior City	750
Green Bay	495

Via Lake.

	Miles.
To Monroe	40
Toledo	60
Sandusky	75
Cleveland	110
Dunkirk	230
Buffalo	265

Via Steamboats.

	Miles.
To Sandusky City	75
Huron	85
Black River	105
Cleveland	142
Grand River	172
Ashtabula	213
Conneaut	226
Erie	232
Dunkirk	286
Buffalo	338
To Cincinnati	307
Pittsburg	288
Rock Island, by Chicago	466
St. Louis	552
Cairo	649
Galena	455
St. Paul's	644
Milwaukee	369

THE SAULT STE. MARIE SHIP CANAL.

In 1852 Congress passed an act granting to the State of Michigan the right of way, and a donation of public land, for the construction of a ship canal around the Falls of St. Mary, in said State, approved August 26th, 1852.

The Legislature of this State, in 1853, accepted, agreed to, and made obligatory upon the State of Michigan, all conditions expressed in said act: and at the same time passed an act to provide for the construction of a ship canal around the Falls of St. Mary.

This canal has been completed and was accepted by the State Commissioners in May, 1855.

The following statistics we copy from the Lake Superior Journal:

There was to be done, according to the contract with the State, 88,300 yards of rock excavation, and 127,300 yards of earth do., (mostly hard pan,) and 14,378 yards of lock masonry; besides which, at the request of the State authorities, there have been 12,600 yards of excavation, and 1,105 yards of masonry done as "extra," thus materially enlarging the canal from the first plans. Such changes were strictly in accordance with the law in reference to contracting for the work, as it made provision that the Commissioners might modify or change the manner of building at any time, if they saw that the work could be materially improved thereby. The Legislature being careful that no legal or contract technicalities should prevent the building of a good canal, and the result is, that the most perfect work of its kind in the world is secured for all time.

In executing the work there has been expended 320,595 days' work, viz:

	Days Labor.
Excavation and filling	208,276
Lock masonry, (including quarrying and cutting,)	56,970
Lock foundations,	10,505
Piers,	14,006
Lock gates and timber, (estimated,)	7,712
Slope wall,	5,884
Miscellaneous work,	17,242
Total,	320,595

The amount of excavation performed for each period of six months, since the commencement of the work, was as follows:

	Cubic yards.
First six months, from June to December, 1853,	92,811
Second six months, from December, 1853, to June, 1854,	92,676
Third six months, from June to December, 1854,	60,000
Fourth six months, from December, 1854, to June, 1855,	12,713
Total,	282,200

In the work there have been used as material:

	Pounds.
Iron—in lock gates,	141,920
in piers,	43,357
in lock foundations,	16,993
in repairs and miscellaneous work,	97,540
Total,	299,810

Or nearly 150 tons of merchant iron, besides many tons in machinery, &c., not included.

	Cubic feet.
Square Timber—in piers,	98,851
in lock foundations,	76,664
in lock gates,	6,720
miscellaneous, (estimated,)	15,000
Total,	197,235

There have also been 1,305,000 feet (board measure) of lumber used for miscellaneous purposes, 3,137 kegs of powder, and 9,240 lbs. drill steel.

There have been employed on the work at one time 1,600 men, 100 horses and 25 head of cattle. Also 25 sail vessels, for freighting, 4 chartered steamers and propellers, and 6 barges, which have carried 32,350 tons of stone, to say nothing of timber and other materials.

As to the quality of the materials, it is believed that they will average better than those of any government work in the country. Some of the lock-gate work required white oak timber 42 feet long, 27 by 14 inches, and in some instances, two feet square. To show the difficulty

experienced in procuring the desired size and quality, it may be proper to state that the company let the contract for furnishing this timber, to one of the most extensive dealers in the State. He got out over 700 trees to his mill, of which, when inspected by the Engineers, but four would pass muster. On his failure to obtain the specified quantity, a vessel was dispatched to Canada, which, by searching a long line of coast, and taking small quantities in a place, was fortunate enough to fill the order at a cost of some 75 cents per cubic foot.

The exact cost of the work is not yet ascertained, but it is known to vary but a few thousand dollars from one million of money, all of which has been paid out in cash by the contractors, on the faith of receiving 750,000 acres of government land, on the completion of their work. If they had purchased their land with warrants, instead of doing this work, they would have obtained the same quantity for less than $700,000. It is evident, therefore, that whatever profit accrues eventually to the contractors, will arise, not from the quantity of land received, but from their wisdom or good fortune in making good selections.

The men who have been prominent in the direction of the work, are Erastus Corning, of Albany, N. Y., President of the Canal Company; John W. Brooks, of Michigan, Vice President; Charles T. Harvey, of Michigan, General Agent; L. L. Nichols, Engineer.

Mr. Harvey had supervision of the construction work at the Sault during the first year, and last six months. During the summer of 1854, when the heaviest work was being done, Mr. J. W. Brooks superintended the operations, assisted by Messrs. H. D. Ward and O. P. Root, of New York, men of great experience in such enterprises.

Among the prominent overseers of the different departments of work, might be mentioned:

Charles W. Chapel, of Utica, Michigan, excavation work; Henry Haimes, of Detroit, stone-quarrying and cutting; T. M. Hubbell, of Detroit, dredging and freighting; D. C. Whitwood, of Detroit, supplies; J. N. Sly, of Ohio, pier building; George Shakespeare, of Sault Ste. Marie, carpenter and joiner work; Henry McCarty, of Pittsburgh, Pa., patentee and builder of lock gates; Messrs. Easterbrook, Ashby & Toby, masonry, &c., &c.

On the part of the State, the Commissioners who have so successfully fulfilled their trust, are: Hon. Shubael Conant, of Detroit; Hon. Hen-

ry Ledyard, of Detroit; Hon. John S. Barry, of Constantine; Chauncey Joslin, of Ypsilanti; Alfred S. Williams, of Pontiac.

The lamented Capt. A. Canfield, of Detroit, was first Chief Engineer, and succeeded by John T. Clark, the State Engineer of New York, assisted by Col. James L. Glenn, as Resident Engineer.

Hon. Andrew Parsons signed the contract, as Governor of the State.

The dimensions of the Canal are as follows:

Locks, 350 feet long by 70 feet wide, in the clear.

Lower Pier and Fender Pier, 372 feet long.

Upper Pier, 830 feet long.

The Canal, from extremity of Lower Pier to Upper Pier, is 5,694 feet long, or about 1 1-12 miles. It is 12 feet deep at low water mark, 64 feet wide at the bottom, 100 feet at water level, and 115 feet at top of banks.

The first barrow of dirt was wheeled out by Mr. Harvey, at "Breaking of Ground," on the 8th of June, 1853, and the last barrow by the same gentleman, on the 8th of April, 1855, being one year and ten months. As all the work was then completed, except some small matters of "finishing," that may be considered the actual working time.

In view of the magnitude of the work, the unexceptionable character of its execution, and rapidity of its accomplishment, the world may be challenged to designate another work so public in its nature, and so creditable in all particulars to all concerned.

P. S.—We have just learned, with pleasure, that the Ste. Marie Ship Canal has been formally accepted by the State Commissioners.

GEOLOGICAL SURVEY.

We continue our extracts from the State Geological Reports, and here give another portion of the

REPORT of Bela Hubbard, Assistant Geologist; to Douglass Houghton, State Geologist.

Sir—In compliance with your instructions, entrusting to me the Geological Supervision of the counties of Wayne and Monroe, I completed, late in the season, a detailed examination of those districts, the most prominent results of which are now submitted. It is hardly necessary to add, that as the annual reports are designed to embrace only subjects of immediate utility, considerations of a theoretical nature have been avoided.

WAYNE COUNTY.

TOPOGRAPHICAL FEATURES.

Nearly the whole of Wayne county is included within that portion of the peninsula constituting its eastern border, in which no considerable prominences occur, and the descent to the coast is gradual and uniform. In this county, consequently, if we except the township in its north-west corner, the general level is varied only by gentle undulations or isolated sand ridges, forming no continuous ranges and seldom exceeding the relative height of 20 feet.

The greatest elevation of coast from Milk River Point, on the St. Clair, down to the Rouge, is about 20 feet; from the Rouge to the mouth of the straits 10 feet.

Along the whole eastern border of the county the altitude attained at distance of six miles from the coast varies but little from 33 to 36

feet. At a single point only, in the vicinity of Detroit, it attains to 45 feet above the river; the general level of the table land at this place being about 26 feet.

A portion of this belt, three miles in width, extending through the towns of Hamtramck, Greenfield and Springwells, falls from the general level and is proportionately wet. Below the Rouge this belt becomes intersected by wet prairies, extending over the west half of Ecorce to the Huron river.

Throughout that portion of the county comprised in the belt above mentioned, the streams flow with but moderate current, have generally deep channels, and frequently spread into broad marshes near their embouchure, and even in high stages of the water, to the distance of several miles inland. These borders of marsh alluvion are frequently many acres in extent; as at Grand Marais of Lake St. Clair; on the Rouge, Ecorce, Brownstown and Huron rivers.

Beyond the belt above described the land rises more rapidly, attaining at the western line of the county to about 140 feet above the straits. The streams are rapid and furnish abundant water power.

Two-thirds of the county are flat, heavily timbered lands, producing a stout growth of oak, elm, whitewood, maple, beech, lynn, (bass,) ash, hickory, butternut, black walnut, &c. Chestnut is found on sandy ridges in the towns of Dearborn and Van Buren. The remaining third is undulating oak openings, or plains, interspersed with wet, grassy prairies; the latter obtaining a proportion of about one-fifth. The proportion of actual swamp is small, and probably little or none exists that may not be reclaimed by a course of drainage properly conducted.

SOIL, AND AGRICULTURAL CHARACTER.

Clay and sand loams constitute the soils of the timbered land. These occupy nearly equal proportions of surface and often alternate within short distances. The former derives its character from a bed of yellow or brown friable clay, which reposes upon the extensive blue clay deposite immediately overlying the limerock.

Clay is reached throughout the portions characterized by sandy soil, at a depth of from 5 to 12 feet.

The upper clay has an average thickness of five feet. The lower clay is of a variegated blue color, gravelly, and intersected by layers or

strata of quicksand and gravel. This clay sometimes approaches the surface, as in the vicinity of Detroit. Its average thickness must exceed one hundred feet.

These soils are excellently adapted to agriculture. Silex enters largely into their composition. Both clays generally contain a large portion of lime,* which adds to their fertility. The contained gravel assists to conduct away the surface waters, and prepare the ground for tillage, while the retentive powers of the clay render it little liable to suffer from drought. Thus, while the sand loams may be cultivated to wheat and other grains, the greater portion of the clay lands is natural meadow, adapted to grazing. Its value for this purpose is beginning to be understood, and it is probable that were its merits fairly tested by a system of dairy farming, it would prove productive of a profit to the husbandman second to none in the State.

The sandy oak openings and plains are generally productive. They possess the advantage of being easily tilled, and are well adapted to grain and root crops. Some portions produce good wheat. This soil contains only a minute proportion of lime.

No part of the county can be said strictly to have a limestone soil. The great lime-rock formation approaches the surface at several points in Brownstown and Monguagon, but is in general too deeply covered by the clays to allow it to characterize a large extent of soil.

In the town of Plymouth a different character of country prevails from any yet described. This town and part of the two adjoining may be considered as lying without the border portion of the Peninsula, in which I have described Wayne county as included.

This township presents a surface more rolling, and broken into frequent ridges. They rise often from 60 to 80 feet from the plain, with a steep declivity, and having no apparent uniform direction. They are composed of gravel associated at the surface with a clay loam. For the production of wheat, probably this soil is not excelled.

The boundary between the land of this character and the more level tract which constitutes the whole remainder of the county, is strongly marked by a low gravelly ridge, the supposed former shore of the lake.

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*An analysis of 100 grains of the clays, taken at random, showed:

	Upper Brown Clay.	*Lower Blue Clay.*
Sand and silicious matter,	51.50	27 50
Alumina,	29.95	52.30
Carb. Lime,	18.55	18.98
Oxide Iron,	00	1,22

Its course is south-west through a corner of the town of Livonia, entering Plymouth between sections 12 and 13, passing a little to the east of Plymouth corners; thence through section 33 into town of Canton, which it leaves on section 30. As but a small portion of this ridge is found in Wayne county, a particular description is deferred to a future report.

BOULDERS.

No part of the county can be denominated stony. Imbedded in the clays, and occasionally found grouped upon the surface, are water-worn boulders or fragments of the primary rocks. A species of reddish granite predominates, occuring frequently of more than a ton weight. Boulders are found in great numbers in the town of Plymouth, a large proportion being of fossiliferous limerock. Limestone boulders are also numerous in the bed of Huron river, sometimes of large size. Occasional banks of cobble stones were found heaped along its sides, of a size suitable for paving.

An interesting locality of boulder rocks was met with at Rawson's mills, town of Van Buren. An excavation in the river bank had exposed a bed of limestone and clay slate rocks, thickly deposited near the water's edge, to the depth of several feet. The slates were often of two to three feet diameter, of dark color, fissile, and containing iron pyrites.

MARSHES OR WET PRAIRIES,

Comprise extensive tracts; they are of generally similar character, being low portions of the sandy openings that have been subjected to an overflow of water for a sufficient period to allow a deposition of muck or peat from vegetable decomposition. This peat supports a growth of wild grass, destined to add annually to its accumulation. Thus what were ponds, become by this process extensive beds of vegetable soil, varying in humidity with the seasons. These beds have a depth of from one to six feet, and upwards.

Indications are apparent which prove that very many, at least, of these peat marshes had their origin in the labors of the beaver, aided by the natural conformation of the surface. They occupy gently rolling tracts, in which ridges of sandy "openings" and detached prominences or *islands* of the same are intersected by long bands of marsh. Nearly

all the streams of the border townships head in these tracts, and it is easy to conceive how the portions now converted into marsh might have been flooded by the obstruction of those natural channels.

If this view be correct, the practicability of drainage becomes at once established; and such conclusion is verified by actual results.

The following comprise the principal marshes of the county:

About fourteen sections, two thirds of which are in the town of Hamtramck, and the remaining third in Oakland county, are of the character above described; but not more than one-half this extent is actual prairie. This yields an abundant growth of wild hay. The marsh is now in the progress of successful drainage. A thickness of fibrous peat is disclosed, averaging four feet, succeeded by a subsoil of gray sand, nearly free from aluminous and vegetable matter.

Prairie of similar character occurs in towns of Greenfield, Redford and Royal Oak. It covers 8 sections, one-half of which is in Oakland county. Comparatively a small portion consists of dry openings, and one-half bears a dense growth of small tamarac. Its soil varies in depth from 3 to 6 feet, and is in many places so charged with water as to be tremulous. It produces large quantities of cranberries.

Prairies of a different character occur in the lower part of the county, over a surface of 46 sections, of which 18 are included in town of Ecorce, 11 in Brownstown, 7 in Romulus, and 10 in Huron.

Branches of the Ecorce and Brownstown creeks meander this tract. These, flowing with little descent through lines of level prairie, are ramified in every direction, and form a net work or connected chain of marshes over the whole surface. The dry portions consist of sandy plains, frequently but little elevated above the surrounding marshes, and producing a scattered growth of yellow and white oaks. They sometimes assume the form of ridges, which continue unbroken for many rods, and without any uniform direction. The marshy portions, which generally predominate, have a soil of black muck, intermixed with sand washed from the adjoining plains, averaging 2 to 3 feet in depth. This is covered by a few inches of light fibrous peat. Subsoil is sand. In a few instances clay was found approaching the surface, and it undoubtedly underlies at no great depth.

Wild hay is cut on these marshes in considerable quantities.

According to reports of the Indians, beavers disappeared from

this region thirty years ago. Their numbers previous are said to have been incredible.

Few trials have been made in drainage. A shallow ditch, or even a passage cut through a beaver dam, has in two or three instances effected great improvement. I observed vegetables growing upon a piece thus ditched, and it is said that wheat succeeds well.

This tract is owned mostly by "non-residents." Several untenanted houses gave evidence that a few families who had commenced a settlement have deserted to more favorite spots. Ditching had not been attempted. The expense of this kind of improvement is comparatively small, and I do not doubt that were less than half the ordinary labor in "clearing" bestowed upon a course of drainage, these lands, instead of their present little estimation, might soon be accounted amongst the most fertile in the State.*

In the south-east quarter of range eight east, town of Huron, marshes occupy, it is supposed, two-thirds of the surface. They have a peat soil, averaging two feet, but occasionally much deeper, and inclined to bog. Cranberries grow abundantly. Branches of Swan creek meander this tract in such manner as to facilitate drainage; and the comparatively dry character of a large portion will render the cost of ditching moderate.

Smaller marshes occur in the county, though not frequent, and of little general account.

ENCROACHMENTS OF THE RIVER AND LAKES.

Extensive damage has been occasioned by the unusual height of the lake waters during several past seasons. From the St. Clair to Huron river, the coast, which is mostly gravelly blue clay, with alternations of sand, has been abraded to such an extent, since 1835, as to remove the entire line of coast, where unprotected, several yards to the westward. Along the coast of Hamtramck, above Detroit, scarcely a vestige of the old river road remains. Near Milk River point, the waters are said to have advanced inland 150 feet within the past two years. Below Detroit, the depredations upon the coast have been less severe, but sufficiently so to render a portion of the road below the Ecorce unserviceable, and deprive the already narrow turnpike above of several yards of its

*Ditches may usually be cut, of 3 feet wide by 2 deep, for from two to four shillings per rod —perhaps less. The main ditches of the extensive marshes in Hamtramck, owned by Judge Conant and others, are 6 feet by 4, and cost $1 per rod.

width. Along the Gibraltar front, at the mouth of the straits, where the bank is from 6 to 10 feet in height, the waters have advanced 10 feet inland.

This abrasion of the coast has been in progress not only for the past two or three seasons, but to some extent through the fluctuations of level in the lakes during a much greater term of years. While the configuration of the straits preserves the Canada shore in a great degree from erosion by the current, its whole force is felt upon the western coast; a much greater abrasion being prevented only by the low and shelving character of a large portion.

From the same cause, the marshes bordering the shores have been greatly extended. Many acres of former arable land, both in Wayne and Monroe, are now embraced by the waters. Numbers of orchards, the growth of a century, have become a prey to the flood, and families of the old French inhabitants are driven from homes till now occupied from childhood. The United States road from Detroit to Monroe has been rendered impassable at no less than three points, and the travel forced into other and circuitous routes.

Leaving to an abler pen the investigation of the causes of this unprecedented rise, it may not be amiss to notice, briefly, such remedies as have been tried, or may be proposed to check the devastations occasioned by it. Should those causes continue to operate in maintaining the present elevation of the waters, the subject will become of vast importance to the interests of this portion of our State. Every foot of coast now suffered to waste away, involves a loss much exceeding that already sustained. The inconvenience now felt from the diminished breadth of the river road below Detroit, calls for one of two remedies; either the roadside must be protected by a dock along nearly its whole extent, or a new and broader road must be opened in the rear and beyond such a probable future contingency. The former method, owing to its expense, will, it is presumed, never be resorted to by public authority, nor by individuals to much extent.

Although the erection of docks is undoubtedly the only permanent protection, more simple remedies may to some extent prove of avail. Quantities of brush, strewed thickly along the exposed bank, afford a considerable protection against the direct force of the waves, and also aid, by the retention of the sand and gravel brought up, to form a beach

along its foot. A heavy log or fallen tree, placed at right angles to the shore, serves to accumulate a beach, and thus often affords protection.

These remedies are not invariably successful; but they are easily attainable, involve but small expense, and will be properly estimated if they tend to preserve even a small portion of the wealth of the landholder from the devouring wave.

CLAY.

Clay suitable for bricks and pottery, is found at numerous places in the county, though the value of much of it is deteriorated by the presence of lime. The manufacture of bricks is conducted at several points.

At Springwells a brickyard has been established for several years. The clay used is from the blue clay deposit, and is tolerably free from grit. The sand is taken from a cap or hill lying above the clay with strata of gravel interposed. The bricks find a market at Detroit. About 500,000 are manufactured annually, worth $5 00 per thousand.

A superior clay for brick is found in the banks of the valley of the Rouge, and several kilns are established in the towns of Springwells and Ecorce. At a yard belonging to Mr. Abial Wood, on the south side of the river, (farm No. 661,) the clay employed is of a light blue color, free from grit. It improves with the excavation. At depth of 6 feet, I observed it of a lighter color, sometimes veined with white. About 300,000 bricks were manufactured this season.

At a yard of Mr. Wood, on the opposite side, about the same number have been made. This yard has been established three years. The blue clay is used, and is said not to improve with the depth. The overlying yellow clay is considered inferior. A cap of sand overlies of 2 to 4 feet.

Two adjoining brick yards have manufactured about the same number each—an amount this season less than usual, on account of the prevailing sickness.

A fine blue clay appears near the river bank at Flat Rock, from which brick is made. Its quality is said to be impaired by lime. About 500,000 have been burned.

At Morris', three miles above Mt. Pleasant, a brick yard is commenced —clay said to be of good quality. The yard is on the summit land adjoining the river, at a height of 50 feet.

Two yards are estal lished on the middle branch of the Rouge, in the town of Nankin. At Wilkinson's, near Schwarzburg, clay appears in a stratum running along the bank, and is here two and a half feet thick. Portions contain too much lime to be used with advantage. Good bricks are manufactured of the clay taken from the river bottoms, at Swift's, section 11.

A bed of clay occurs in the town of Plymouth, section 4, from which bricks and earthen ware are manufactured. It consists of strata of the blue and yellow varieties, underlying probably 8 acres, with an average thickness of 4 feet. A cap of sand, of 2 feet thickness, overlying, is used in the manufacture. Sand and gravel underlie the bed of clay, which are unfit for use from the lime contained. The bricks are of good quality; 100,000 were made this season, worth $5 per thousand. The pottery ware receives a good glaze, and is durable.

A bed of clay exists west of Plymouth corners, section 27. It is supposed to cover 80 acres. Considerable lime is contained; 500,000 bricks are made from it each season.

A bed of fine blue clay exists on section 11. The above were the only deposits observed in this township.

Blue clay appears at the surface in the town of Canton, which is free from lime.

In the town of Huron a fine blue clay underlies the low lands bordering Swan creek, at small depth, and frequently comes to the surface.

The blue and yellow clays make their appearance at every bluff along the Huron. They are in general very marly, and seldom free from grit. A kiln was erected in a ravine of Woods' Creek, section 36, Van Buren, but the clay proved so calcareous that the works were abandoned.

LIMEROCK.

The great limerock formation, upon which the clay deposits of the county rest, makes an outcrop, or appearance at the surface, through the townships of Monguagon and Brownstown. It forms the bed of the strait near its mouth as well as a foundation to the islands.

The most easterly point at which the rock appears above the level of the water, is at Stony island. This is wholly constituted of the rock, covered by only a few inches of soil. Limerock was formerly quarried

upon this island, as is testified by numerous pits, but the fractured surface stone only appears to have been removed. These fragmentary blocks seldom exceed a foot diameter, are of a white color, compact, and afford good lime. The island is but little above high water level, and the pits are now flooded.

Quarries have been opened at the lower end of Grosse Isle. The rock makes its appearance in a slightly elevated ridge, at some distance from the shore. Trenches are opened for quarrying in no place more than 5 feet deep. The upper layers are of a few inches thickness, removable in irregular pieces of a size suitable for rough building. One of the trenches exposes a stratum of 3 feet thickness, for the distance of 300 feet. The stratum is compact and may be broken out in nearly square masses.

Sulphate of strontian, in large crystals, is abundant in the upper layers. No fossils were discoverd.

In section seven, of Monguagon, is a protrusion of the rock in a ridge, occupying a surface of a dozen acres. Quarries have been extensively worked, chiefly for lime. The rock is in strata of from 6 to 10 inches thickness, of gray color, crystalline, and eminently fossiliferous. The quarries have extended to the depth of 6 feet. The color of the stone deepens into blue, and its hardness increases with the depth. Calcareous spar is contained in crystals, lining small *geodes* and fissures. Thin layers of indurated bituminous matter, approaching coal, are contained between some of the strata. The largest masses of stone observed to be quarried in good condition, were two feet in length by about eighteen inches wide. Whether larger slabs might not be obtained by proper care, I was unable to learn. It is fully equal in beauty to the much admired building material brought from Ohio, but its superior hardness renders the dressing and polish much more expensive.

From 9,000 to 12,000 bushels of lime are manufactured annually at this quarry.

Limerock makes its appearance in Brownstown creek, one and a half miles west from Gibraltar, and has been used to a very limited extent for domestic purposes.

Rock is said to appear at the water's edge, on the lower end of Celeron island.

Limerock forms the rapids in the Huron, at Flat Rock. It appears

in a smooth, almost unbroken bed, for the distance of forty rods, forming a foundation to the dam above, and disappearing in deep water below the mills. The rock is of dark gray color, occasionally porous. A specimen contained hornstone.

Rock was also occasionally found forming the bed of the channel from Flat Rock till within two miles of Mt. Pleasant, and large tabular masses, but little worn, appeared even farther up, proving the existence of rock in place at no great distance.

A very slight general dip in the limerock of this county, north-westerly, is observable.

MARL.

The only deposits of shell marl known to exist in this county in sufficient quantity for economical purposes, are in the town of Plymouth. The following deserve notice:

On section 22 (at Deacon Purdy's,) is a small deposit which occupies two-thirds of an acre. As other beds occur in the township of similar origin, it may be advisable to notice the circumstances of its formation. Upon a gentle slope a protuberant bog has formed, which is wet and slightly tremulous. It consists of peat, or vegetable matter, having a depth of about 3 feet. Below this is found the marl, which has here a thickness of from one to three feet. It is a plastic substance of a milky gray color, perforated by roots, and may be cut out in masses like clay. The presence of lime is indicated at the surface by a calcareous deposit upon moss.

Beds thus formed originate chiefly in deposition from water of springs highly charged with lime; circumstances under which tufa, or indurated deposits of lime, usually occur. Lime is favorable to the formation of shells, which are generally associated in abundance, but do not constitute the bed as when it occupies the former bottom of a lake. Several species of the genus Helix (snails) are most numerous, with Lymnea, Planorbis, &c.

As the producing causes are still in operation, marl existing under these circumstances may be supposed still in progress of formation.

Eight hundred bushels of lime have been manufactured at this bed; much of it beautifully white and of good quality.

The marl furnishing this number of bushels was taken from an area

of three square rods. Should the deposit cover but half an acre, with the depth of a foot, (a low estimate,) the amount of lime it is capable of furnishing would be 21,333 bushels. Five hundred bushels of the lime cost in the digging and manufacture 57 days labor. Reckoning these as so many dollars, and the lime at two shillings per bushel, (average price,) there will appear a profit of more than one half the price brought by the article.

On the farm of Caleb Herrington, Esq., sections 5 and 8, a very extensive deposit was exposed in digging a drain to remove the water from a tamarac swamp. At several places a pole was thrust into the bed, without passing through, to the depth of six feet. From the indications apparent, I am led to believe that the entire area of the swamp (30 acres) is underlayed by the marl. It is compact, heavy and plastic. This marl is well adapted to the manufacture of lime, but has not yet been applied to that purpose.

On land of Sylvanus Taft, section 4, is a bed of an acre or more in extent, with an average thickness of two feet. It is compact and of good quality. No lime has been manufactured, but much of it used in its natural state, by the neighbors, for plastering and whitewashing, is said to have fully answered the purposes of kiln-burnt lime.

Numerous other indications of marl occur through the township. A bed is said to exist on section 27; also, on farms of Mr. Holmes, and others, probably to a small extent.

A small bed was found on land of Wm. Yerkus, section 2.

Upon the surface of a knoll at Waterford, a considerable quantity of a dry pulverized marl was observed.

On the farm of Pitz Taft, on the Base line, within the boundary of Oakland county, is a deposit which may be noticed in this connection. It covers two acres, with an average depth of six feet. It is a tufaceous shell marl, in coarse particles, with a stratum of tufa underlying, and occurs under circumstances similar to those of the deposit on section 22, first noticed.

Ten square rods have been excavated, out of which were manufactured 3,000 bushels of lime, of good quality. It sells at three shillings per bushel.

Assuming the above proportion, the quantity of marl may be estima-

ted at 31,680 cubic feet. The amount of lime which the bed is capable of furnishing at 96,000 bushels.

Marl, in small quantity, has also been found in town of Canton, section 9.

No experiments have been made in the employment of marl as a *manure*, in this county, nor, as far as I am informed, elsewhere in the State. This is somewhat a matter of surprise, since trials of plaster (gypsum) and quick lime are acknowledged to have produced extraordinary results. It is, however, scarcely known to our farmers that marl, or *bog lime*, may be used with equal profit, while it has the advantage of being obtained at a much cheaper rate. It deserves to be made the subject of immediate and ample experiment, particularly upon sandy soils and those which are found to contain but small proportion of that essential ingredient, *lime*. This is often the case with the lands in the immediate vicinity of the marl beds.

PEAT.

Peat, or vegetable alluvion, is found in considerable bodies in town of Plymouth, overlying the marl, and in the marshes or wet prairies of Greenfield, Hamtramck, Ecorce, Brownstown and Huron. These latter deposits have been already noticed under the head of marshes.

The greater proportion of peat found in this country belongs to the variety called fibrous, being a mere mass of spongy fibres of grass roots, partially decomposed and elastic to the tread. A small proportion is of the *sphagnous* or peat moss variety. Comparatively little is compact, or in a state which would render it of much value for fuel.

A bed in the tamarac swamp on sections five and eight, Plymouth, to the depth of five feet, was found to consist chiefly of the kind denominated *ligneous*. It disclosed a half decomposed mass of tamarac logs, with moss, roots, &c. At depth of several feet, I found entire stumps, trunks and limbs of a former growth of timber, retaining their form, but so soft as to yield readily to the spade.

The body of fibrous peat which composes the marshes in Hamtramck, includes about 1,900 acres, with an average depth of four feet.

The adjoining marsh in Greenfield and Royal Oak, comprises about 3,000 acres of this deposit, with the same average depth. Probably a portion of this peat is of ligneous origin.

From 3,000 to 4,000 acres of fibrous peat, with average depth of two feet, are contained in the marshes of West Huron.

Of the other smaller deposits of peat noticed under marshes, no estimate could be made.

None of these beds of peat have yet been esteemed of importance as an article of fuel or manure. The wants of our population do not demand any present consideration of its value for the former purpose. But in the latter capacity it will be found serviceable and cheap, and it is desirable that fair trials of it be made. It may not prove sufficiently decomposed for the purpose, until mixed in the compost heaps, and consolidated by the application of quick lime. This disposition of it might be made with peculiar facility where it occurs as in Plymouth, imposed upon beds of marl.

BOG IRON.

Deposits of bog ore occur in limited quantities at numerous places; their origin being apparent in the presence of highly ferruginous soils.

In the township of Greenfield, deposits of ore occupy a considerable extent, chiefly on sections four and nine, where I traced it at intervals over an area of one-half a square mile. It follows mainly the course of two brooks, discharging into a tamarac marsh, on section ten, and embraces the intervening ash swales. It is distributed over this area in beds of a few yards wide, and irregular patches. The deposit consists of an exceedingly compact bed of a foot thickness, which is broken out in large masses, and it is mostly of inferior quality, being what is technically known as an *old ore*. This is succeeded by from two to six inches of the variety called shot ore, which is apparently rich. The covering of soil is from a few inches to two feet in thickness. This is by far the largest depo-it in the county. Time would not permit a very accurate analysis of the ores of this county, but a more detailed account of their composition may be expected at a future period, in treating of the other ores of the State. One hundred grains, however, subjected to a rough analysis, gave:

Silicious and aluminous matter,	26.50
Peroxide of iron,	73.50
	100.00

In township of Livonia, section twenty-eight, bog iron occurs in a low, wet swale, which serves as the outlet to a series of small marshes. The bed follows the lowest portion of the swale for about half a mile, with a width varying from two to four rods, and a thickness of six to eighteen inches. It consists mainly of a bright colored *shot ore*. Peaty muck overlies, of two feet average depth.

Estimating the average thickness of the deposit at one foot, and its width three rods, will show a proximate result of 130,000 square feet of the ore. From the position of the low grounds, following the course of the outlet, it is not improbable that other deposits of this mineral may be found below. The ore is a very rich one, and is well deserving a more extended investigation by the proprietor.

In township of West Huron, section twenty, is a small deposit, occupying an area of thirty rods long, by one wide. It forms a compact body six to ten inches in thickness, mostly "dead ore."

On section twenty-one, a narrow deposit of bog ore occupies the bed of a small run, connecting marshes. It is similar to the above, and of small extent.

Other indications of ore occur in this township; probably of but little account.

Much of the soil of the township of Plymouth is found charged with iron.

Strong indications also exist in the towns of Canton and Nankin among the wet prairies of Ecorce, and along the bottoms of the Huron, in the township of Van Buren.

CHALYBEATE SPRINGS,

occur in several of the above townships.

One in Canton, section 5, has formed a considerable mound by deposit of calcareous matter from the water.

A spring, much impregnated with iron, issues from the river bank near Rawson's mills, town of Van Buren.

SULPHUR SPRINGS,

of considerable strength, occur, but are not numerous.

A very large one rises in the bottom of the Huron, in the Wyandot reserve. It occupies a hollow of an oblong shape, 300 feet by 150. The water deposits thin films of sulphur.

In town of Ecorce, section 22, is a spring very strongly impregnated. It occupies a basin of 100 feet diameter. This spring, with the one above mentioned, probably exceeds in strength any others in the State. They are favorite resorts for domestic cattle, as well as for deer and pigeons.

On section 20, town of Dearborn, several sulphur springs issue copiously from the bank of the Rouge. Their waters also contain iron, which imparts an inky color to surrounding surfaces, by combination with the characteristic acid of their vegetable portions.

A spring of considerable strength issues from the bank of the Huron a mile below Flat Rock.

On section 29, Brownstown, a spring, strongly impregnated, rises in the edge of a tamarac marsh, forming a large basin. The stream issuing is sufficiently large to overspread a considerable tract. Indications of salt and lime were present.

Strong sulphur springs abound in the neighborhood of the marshes around Gibraltar. Their vicinity is strongly colored by a milk white precipitate.

The source of these springs is noticed under the geology of Monroe county.

BRINE SPRINGS.

Springs of brackish water are found occasionally through the northern and western townships; but their position in regard to the true saline district of the State, would probably not warrant the expectation of profit resulting from them in the manufacture of salt.

Several "licks" were visited in the towns of Springwells, Redford, Canton and Nankin; but they contain, mostly, the salts of lime.

A spring, impregnated with saline matter, rises on the bank of the Rouge, in town of Redford, section 27. The discharge from it is about 60 gallons per hour.

In an early state of the country, salt was manufactured here by the Indian and French settlers. A hollow gum was sunk, which has long since rotted away. Furnaces were constructed of brick. An attempt was made a few years ago, at considerable expense, to revive the manufacture. The result was the manufacture of a small amount, half a bushel of which was sold in Detroit as table salt. Sickness occasioned

discontinuance of operations, which the diminished price of salt has since rendered unprofitable.

In town of Nankin, section 11, springs occur, at one of which a well is now sinking preparatory to an attempt at salt manufacture. The excavation has proceeded eight feet, being protected by a strong curb of wood. I was informed by the proprietor that an ordinary pailful of the brine produced a gill of saline residuum.

An analysis of 100 cubic inches of water from this spring, furnished in the first annual report of the State Geologist, showed 38.47 grains of muriate of soda, (common salt,) combined with muriate of lime and other matters. This result exhibits a strength equal to only one-fourth that of the brine springs at Grand Rapids, and less than one-tenth that of the springs of the Tittabawassa, the points at which operations are commenced for the State salt manufacture.

In regard to the conduction of operations by individual enterprise, we would refer to the whole subject of brine springs as presented in that report. It may thus be seen under what conditions only, certain reliance can be had of ultimate success; nor should it appear surprising that expectations, not the result of a thorough understanding of the subject, may end in disappointment.

WATER, WELLS AND SPRINGS.

The county may be considered as in general, well watered, by streams discharging into the straits at intervals of a few miles. Their waters, like that of the lakes, are soft. The River Huron alone forms an exception, which passing over limerock and through marly clays, becomes hard, or charged with lime.

The early French settlers dug no wells. They clustered about the streams, and partook from those natural fountains. The surface waters thus in most cases obtained, and from streams often winding sluggishly along low and marshy banks, afforded but an indifferent beverage.

Numerous wells have since been sunk, and with various success. The thick bed of blue clay which underlies the county at small average depth, though charged with gravel, is not sufficiently pervious to admit the percolation of large underground streams. For this reason, springs do not abound, and a large portion of the water of wells is a mere drainage from the surface. Some springs, however, exist in the clay

district, as on the Bloody Run. They are more frequent and copious beneath the caps of sand and through the openings, as at Springwells, (La belle Fontaine of the French,) Mt. Pleasant, &c., on the Huron.

But, though the obtaining of water from living springs throughout the clay district, is thus in a degree rendered uncertain, excavations for water have been generally successful. Occasionally copious streams are opened, discharged through *seams* of gravel and sand. Usually water percolates slowly through a gravelly stratum of the clay, and is sweet and pure, and in sufficient quantity for ordinary purposes. Well-diggers assert that such a seam of gravel, at depth of twenty feet, is very general.

These experiments determine: first, that a reasonable prospect exists of obtaining good water by digging; secondly, that a very deep excavation cannot be recommended.

Wells of from five to twenty feet, frequently afford an abundant supply, rising from below; while excavations in the same neighborhood of from fifty to one hundred feet, through a hard, dry, reddish blue clay, yield no water or are filled from the surface. The boring at Detroit, which extended to the depth of two huudred and sixty feet, one hundred and thirty-three feet of which was in rock below the clay, failed to furnish the desired supply. Instances have occurred, however, from diggings in the vicinity of the limerock, of a very copious discharge from an unusual depth.

Much of the bad effects of stagnant water might be avoided by occasional cleansing of wells. A fresh supply should be obtained by thoroughly draining the well of its contents, whenever an approach to putrefaction is perceived.

Might not a quantity of lime or charcoal, whose antiseptic qualities are well known, thrown in, be a useful auxiliary in preserving purity?

No purer water perhaps exists than that of our immense upper lakes, the whole body of which passes through the straits of Detroit. It is exceedingly soft, and in its under current of almost uniform coldness throughout the seasons.

Detroit denied herself the enjoyment of this luxury, when, by an unfortunate policy, the supply that should have been sought in that volume which flows pure and icy cold in the depths of the channel, is transferred to the reservoir from the warm, contaminated surface at the docks.

A remedy is obtained by removal of the works above the city, and the substitution of iron pipes for wood; but it is suggested whether another improvement might not be effected by extending the supply pipe from its present mouth, at five feet below the surface, into the deep recess of the channel.

Plymouth, which borders on the flat clay district, is the only township that abounds in numerous and copious springs of the purest water. Through this tract of broken, gravelly hills, single springs occur sufficient to give rise to considerable streams.

MONROE COUNTY.

TOPOGRAPHY.

The county of Monroe partakes of the general uniformity of surface of the eastern border district of the Peninsula. This general level is here interrupted by no sudden prominences exceeding 20 feet in height. The rise from the lake is gradual and nearly uniform, attaining at the western line of the county to about 115 feet. The streams descend with a rapid flow, furnishing numerous mill sites.

LAKE COAST.

The very gradual ascent of the coast renders a border of many acres liable to be overflowed, and has occasioned broad marshes along nearly its whole extent.

From the same cause, the streams, after flowing with a lively current, on approaching the coast, subside to a level, and are affected by the fluctuations of the lake to the distance of two and three miles inland.

This joint action of the tide and current has given origin to several extensive deltas. Thus the approach to the city of Monroe, three miles inland, is through a circuitous channel, among islands of low alluvion, making a passage of six miles. A cut effected by the ship canal, now in progress, will shorten this distance one half. The unfavorable impression produced by the Raisin and other streams, at their entrance to the Lake, is, however, removed on tracing their course through the rich and varied interior.

At least one half the whole line of coast presents a border of marsh, irreclaimable, except at the will of the Lake.

The most elevated portion of the coast is at Point aux Peaux and

Stony Point, near Brest. About one mile in extent has here an altitude of 5 to 8 feet, occasioned by an outcropping ledge of limerock.

The effect of the surf breaking upon the outer edge of the alluvial fields and islands is to accumulate detritus, brought up by the lake, occasioning sand beaches. These by successive additions assume the form of ridges, generally elevated about 4 feet. Beaches thus formed skirt the outer edge of the delta of the Raisin. A narrow ridge of sand is frequently seen protecting low marshy tracts in their rear. In a similar manner a spit of sand, four miles in length, forms the barrier to Ottawa bay. This has probably a base of limerock, with clay superimposed, which has been protected from the erosive action of the lake by the cover of sand at the same time deposited from its waters.

SOILS AND TIMBER.

The county is bordered on the east and west by heavily timbered clay lands, having a width varying from two to nine miles. This timbered tract, on the west, continues into the adjoining county.

The whole included portion, in width from 8 to 14 miles, and extending in northeast and southwest direction into the adjoining counties on the north and Ohio on the south, consists of sandy "openings" and plains, with a large proportion of wet prairie or marsh.

The heavily timbered tracts produce a large growth of oak, white and black ash, elm, lynn, beech, maple, whitewood, black walnut and sycamore, evincing a rich and very durable soil. Cotton wood is found in swamps, on the western edge of the county.

The timber of the plains and openings is mostly a yellow and white oak, often a thin and scattered growth, upon a meagre soil. Some clayey and more fertile portions produce hickory, and through Frenchtown and Raisinville, burr oak and chestnut are abundant.

The entire county may be said to be characterized by the great limerock formation, which is found to lie at no great depth throughout, and approaches the surface in at least twenty different places. Beds of clay and sand repose upon it. The former everywhere evince the proximity of the limerock by their extremely marly character, and the numerous imbedded angular fragments of the rock.

The outcrops of the limerock are found to lie in several distinct ranges, extending through the county in a north-east and south-west direc-

tion. The outer range, commencing at the south-east corner of town of Whiteford, forms there a ridge or step, having a rise above the general surface of 15 feet in a breadth of 2 miles. It passes thence in a nearly north-east course to Brest, occasioning those intermediate hillocks or protrusions of rock which occupy areas of from one half to two square miles. At Stony Point it comes out upon the Lake in the ledge before mentioned, and still further on in the same direction makes its appearance on the islands at the mouth of Detroit Straits and the neighboring shores.

The second range, from the town of Whiteford, where it apparently approaches the range first mentioned, passes through the northern part of the town of Ida, in a nearly direct line to Flat Rock.

West of this range, rock again appears on the Macon river, in the reservation, and in the Raisin, at Dundee.

From all the data that could be obtained, the deposit of blue marly clay in the intervals between these ranges, does not exceed in thickness 20 feet. Upon this rests a brown or yellow clay, similar to that which overlies the blue in Wayne county.* It has a thickness of 3 to 10 feet. This clay constitutes the basis of more than three-fourths of the soil of the timbered lands. Sand loams occasionally alternate with it, and in the town of Milan a rich black sand loam constitutes three-fourths of the soil.

The sand of the openings and plains has a depth probably not exceeding 10 feet on the general level. Its surface is slightly undulating, and in a few instances considerable ridges rise abruptly. One of these was observed bounding the heavily timbered lands of the town of Erie, succeeded by others having no uniform direction, and varying in height from 6 to 15 feet; wet, grassy swales intervening. I traced one of them for a mile in a northerly direction. A sand ridge borders the prairies in the southwest corner of Ida. It continues for half a mile in a northeast course, attaining to 15 feet in altitude, with the breadth of 100, and terminates by a sudden descent. Similar ridges may be observed on the plains near Sandy creek, town of Raisinville.

*An analysis of 100 grains of these clays showed:

	Upper Clay.	*Lower Clay.*
Silicious matter,	9.25	23.00
Alumina,	67.25	44.00
Carb. Lime,	23.50	31.16
Iron,	.00	1.84
	100.00	100.00

characterize the plains, or whole central portion of the county, comprising nearly one-fourth their surface. They prevail under several modifications, and may be classed as the larger or wet prairie, occupying frequently an extent of several miles, and the smaller, or swales, seldom exceeding an area of 20 acres. They differ also in character, according to the nature of their substratum. The latter class have generally a subsoil of clay, with a covering of peat or muck, deepening proportionally to its extent. Its average is one foot. They afford a coarse grass, (a species of Carex,) much relished by cattle. Where the substratum is sand, a small wiry species generally prevails, considered of inferior quality. Beneath this sand stratum, however, clay will, without doubt, be found at no great depth.

Prairies of much greater extent occupy a large portion of the town of Ida, the southern part of Summerfield, and the eastern part of Whiteford. About five sections of the latter townships are of this character, nine sections in Summerfield, and eighteen in Ida. The soil is a fibrous peat, of one to two feet, and occasionally much greater depth, generally reposing upon sand. It produces a rank growth of wild grass bnt little valued.

These marshes are portions of a connected chain, and have outlets discharging into considerable streams. Facilities thus exist for rendering them available to agriculture by a proper system of drainage, and at comparatively inconsiderable expense. The experiment has been made to some extent in the town of Whiteford, and a tolerable soil for tillage produced. A crop of wheat is said to have been grown upon the tract known as "White's marsh." But it should not be cause for discouragement if several years are required to test fully the value of such experiments. No such cause will exist when the nature of the soil to be dealt with is properly understood.

Similar marshes exist around the head branches of Swan Creek, in Exeter, uniting with those described in town of Huron, Wayne county. They are supposed to occupy one half of the surface of the township north of Stony Creek.

Small ponds of the lily and other aquatic plants, are numerous upon these prairies. A large proportion of the prairies and swales are dry only at midsummer.

PEAT.

The upper soil of the marshes and swales above mentioned, is of the kind denominated fibrous peat; an accumulation, simply, of the annually decaying vegetation. On drying, it will be found a light spongy substance, which may be reduced to an impalpable powder; a character but ill fitting it to become singly, a fertile soil. When, therefore, it occurs unmixed with argillaceous or silicious matter, it is to be doubted whether the most thorough drainage will render it permanently available, unless care is taken to subject it to irrigation at proper seasons, by closing the drains, and it be united with a proportionable admixture of earths. This admixture may often be effected by bringing up the subsoil by deep plowing. The washings from the sandy plains adjoining, when cultivated, will further assist the process.

A coat of lime sown upon the surface would prove a most useful auxiliary. This would exert the triple effect of absorbing moisture, hastening the decomposition, and bestowing one of the most important ingredients of a good soil.

The application of this peat to the soil of the plains, much of which is sterile, would be productive of very important benefit. To effect this, it ought first to be carried to the manure heap, and there become thoroughly decomposed by mixing with quick lime. When applied, this should be at once plowed under. The fine fibre of peat would dry and dissipate if left upon the surface.

When the comparative expense of cutting drains to that of clearing timbered lands, the immediate applicability of these tracts, and their utility in furnishing manure to the sterile soil adjacent, are considered, it will be apparent that the value of these portions of the county is not over-estimated.

LIMEROCK.

The ranges of this rock before described, have a direction through the county which corresponds to the *line of bearing*, or is at right angles to the inclination of the strata. The dip is, consequently, northwest, or northwest by north; very obvious in the outer range, and about 5 ° in amount.

The color varies from light shades of gray to dark blue. It is mostly compact, but exhibits all that variety of character for which the "moun-

tain limerock" is distinguished. This will best appear in the following more extended notice.

It occurs on the bank of Swan creek, at Newport, and in its bed for the distance of two miles above, where to a small extent it has been quarried for economical purposes. The stone is of dark, gray color.

Stone of a similar character appears a mile northeast of Brest, (section 24,) and has been quarried to a small amount.

At Point au Peaux, it exhibits a vesicular or slightly oolitic structure in the lower layers. Superimposed are four feet of disruptured masses of a more compact character.

Limerock appears in the bed and bank of Stony creek, at Brest, where it has been penetrated to depth of four feet. The thickest stratum opened was of three feet. It has a light, gray color, approaching white. It is compact, and some portions silicious; considerable hornstone is contained. The stone is quarried in irregular, small blocks, suited to rough building.

The ledge appearing at Stony Point, resembles in character the rock on Swan Creek. It contains sulphate of strontian.

Limerock forms the bed of Sandy Creek, at distance of two miles from the Lake.

The city of Monroe is underlayed by limerock at depth of from two to five feet. The rock is quarried to small extent in the bank of the Raisin, near the city. Extensive quarries have been opened in the valley of Plumb Creek, half a mile south of the city. The excavations reach to the depth of nine feet. The succession of strata passed thro' presents a variety of characters. The vesicular limestone observed at Point au Peaux again appears associated with silicious portions and compact strata, variegated with yellowish and bluish spots and veins, having the appearance of veined marble. These bear a tolerable polish, and might serve for ornamental purposes. At depth of nine feet a stratum occurs of dark blue color, and veined.

The stone is said to improve with depth, both for lime and building purposes. If this be the fact, it may be advisable to excavate lower down the creek, where, owing to the direction of the dip, these more valuable strata may be supposed to lie nearer the surface.

The stone is mostly quarried in angular pieces of small dimensions,

but slabs are said to be obtainable of size sufficient for door and window sills, &c.

Limerock forms the bed of Otter Creek, at Winchester, and for the distance of eight miles above. It is hard, of a bluish gray color.

Following the range south-west, we find a ridge or hillock composed of limerock, on sections 31 and 32, of Lasalle, and 1 and 2 of township of Erie. It appears over an area of more than a square mile, having an elevation of about ten feet above the level, on the south. The stone, so far as penetrated, (five feet,) is of a light color, striped, and portions fissile.

Limerock is met with, in the same range, at not less than four places, in the township of Bedford. In the bed of Bay Creek, a small quarry has been opened.

Near the centre of the township it appears twice over surfaces of two-thirds a square mile. These have been penetrated several feet, and are found to consist of a very silicious rock, composed of an aggregate of grains of quartz cemented by lime. The upper portions, which lie in loose masses, are calcareous and are alone suitable for burning.

At the south-west corner of section 30, limerock appears at the surface, and in the bed of Halfway Creek. This continues at intervals for a mile west, and in a south-west direction, following Ottawa Creek, to Whiteford, in Ohio. It underlies the intermediate spaces at a depth probably not exceeding five feet. A continuation of the ledge may also be traced north, along the whole eastern border of township of Whiteford. The upper portions only could be observed, which appeared to be a pure, compact limestone.

No fossils were found in this range, except Terebratula, at Newport and Stony Point.

Another range or series of outcrops passes through the centre of the county, in a direction parallel to the former. It must be considered as the overlapping edge of a portion of the limerock formation, superimposed upon that whose outcrop forms the range first mentioned. This portion of the formation includes several strata of a very silicious character, approaching in several instances, almost to pure sandrock.

Stone of this description makes its appearance six miles northwest from Monroe, and was traced over a surface of one half a square mile. It disintegrates readily, where exposed, into a pure silicious sand, which

may be seen to be composed of well formed quartz crystals. Where not discolored by oxides of iron, it is of a pure white.

Associated with this stratum is a gray silicious limestone, which is fossiliferous.

A similar sandrock appears in the bed of the Raisin, at low water mark, section 29, town of Raisinville, where it forms a ledge of a foot in thickness. Some portions are beautifully white, and are nearly pure silex. It breaks easily, and is inclined to disintegrate. It has not been used, except as a scouring sand.

Near the west line of section 19, rock appears at the surface, and has been quarried superficially. It is a silicious limerock, of dark color, and when quarried, moist and soft, and may be dressed with ease to any required form. Owing to its want of compactness, it may be doubted whether it would be permanent exposed to the action of the atmosphere. It has been employed as a building material at Monroe.

Opposite Lawrence's mill, a smooth ledge of limerock forms the bed of the Raisin, and a quarry has been opened on the upland several rods south from the river. The latter furnishes a silicious limestone, varying in color from a light to a dark mixed gray.

In a south-west direction from the above, in town of Ida, rock is found at the surface, over a small area, on section 4. A superficial stratum only has been quarried, of a foot thick, which is said to afford superior lime.

On section 16 a silicious limerock appears in the bank of a small pond, and has been opened to depth of 4 feet. It removes readily in slabs three feet in length, with thickness of four to six inches. Color light yellowish gray.

A vesicular limerock forms the bank at the head of Ottawa Lake, town of Whiteford. It affords excellent lime.

A compact limerock also appears in an inlet at the foot of Ottawa Lake, and has been quarried for lime. Portions are silicious. Considerable calcareous spar is contained.

West of the range just described, limerock makes its appearance on the Macon river just above its mouth, and forms its bed for a mile. It has been quarried extensively, but the excavations have not penetrated below the first solid layer, a depth of eighteen inches. It is mostly of a dark gray color, sparry, approaching a crystalline texture, and abounds

with fossils. Portions give out a very strongly bituminous odor. The stratum exposed is very continuous and has been removed with wedges in pieces ten feet in length; but the blocks are apt to sever under the chisel. From this locality are said to have been furnished the caps and sills for the court house at Monroe. It will compare in appearance with the much admired Ohio stone. This locality is said to afford the best lime in the county.

Rock of a similar character forms the bed of the Raisin at Dundee.

LIME.

More or less has been manufactured at most of the localities of lime-rock above mentioned.

Three kilns are maintained by the quarries at Plumb Creek. Probably 900 or 1000 bushels are made annually.

At the quarry on section 19, Whiteford, five kilns have been burned, of 500 bushels each.

At the Macon quarry eight kilns have been burned, of 800 or one thousand bushels each, which sells at Tecumseh for four shillings per bushel.

SAND.

The only locality particularly worthy of mention, is that of the disintegrated silicious rock, found, as before noticed in Raisinville, on the farm of Mr. Thos. Colwell. This bed was noticed by the State Geologist, in his report of last year. It is mostly pure silex, and for the manufacture of glass, superior to any yet found in this State. A specimen of glass manufactured from it, in the possession of the proprietor, was unusually transparent and free from flaws.

Much of the sand of the plains in this vicinity, and even as far down as Monroe, is intermingled with white silicious grains from this rock.

CLAY.

The clays are in general too calcareous to be used with advantage for bricks or pottery. The upper brown, or yellow clay, is least so, and may be found conveniently for brick at numerous places throughout the country.

The manufacture has been conducted extensively at Frenchtown, op-

posite Monroe. But few were made the past season. During the season previous, so far as could be ascertained, about 1,600,000 were burned at the several kilns. The clay is impure from the lime contained.

A single kiln of bricks has been burned at Brest.

At Mr. White's yard, Newport, 100,000 bricks have been burned. The first two feet of the clay, only, is sufficiently free from calcareous matter to render it fit for the purpose.

Attempts were made at two places, in the town of Dundee, to manufacture bricks, but were abandoned from the cause alluded to. Good bricks are said, nevertheless, to have been made from the clay on Saline river, in the town of London. All the clays in this region, that were tested, gave very strong indications of lime, so much so as to deserve the appellation of marly. As the clays, even in proximate situations, often differ much in this respect, it is important to test them with a simple acid. Good vinegar will answer an ordinary purpose. Clay may, no doubt, be found considerably pure; besides that expense and disappointment may often be spared by a previous knowledge of the character of the material employed.

MARL.

A bed of shell marl (*bog lim,*) underlies the marshy tract bordering the Lake, near the city of Monroe. It has been penetrated to the depth of a foot by ditches, for a considerable distance. The deposit has probably a thickness of several feet, and apparently underlies the whole continuous tract of marsh, an extent of about a square mile.

A tufaceous marl is also deposited in considerable quantities by springs in the vicinity.

In town of Exeter, section 7, a marl is said to have been plowed up, dry, and crumbling on exposure.

A deposit of shell marl was observed in town of Ash, (town 6 south, range 9 east,) section 9. It occurs in a marshy swale, overlaid by 2 feet of muck or peat. The bed is about a foot in thickness, and occupies an area of an acre. Similar swales are numerous throughout this section, as well as in other parts of the county, and the proximity of the limerock warrants the conclusion that beds of marl may be found deposited on low spots, charged with springs.

The economical use of these marls has been noticed under the report

of Wayne county. Probably many of the clays may be found approaching so nearly to marl, as to be of great value as a stimulant manure to sandy soils.

SULPHUR SPRINGS.

Two miles below Monroe, near the marshy border of the Lake, several springs issue from an immense mound. They are strongly impregnated with sulghur, and form thin white deposits of that substance. This mound occupies an area of 4 to 6 acres, rising about 10 feet above the general level. Its surface is wet and boggy. This mound is evidently a deposit from the water of the springs, which running through crevices in the great underlying rock formation, becomes highly charged with lime, and on approaching the surface deposits that substance either in a soft plastic mass, or as a coating upon the moss and surrounding vegetation. Thus marl and tufa result. This process may be observed now going on. Large quantities of moss, still alive, are covered with a thin calcareous crust. A mile further south, are numerous smaller mounds of similar origin. One of these discharges a considerable stream from a spring occupying a large cavity in the centre. Here a foot thickness of white marl is disclosed, overlaid by two feet of crumbling tufa. The spring boils up through a cauldron of calcareous and vegetable matter, into which a pole may be thrust many feet. This mound is circular, 100 feet diameter, and 6 feet high. Most of the other mounds consist of a very indurated lime, or *tufa*.

The famous sulphur spring in the Bay settlement, emerges from a low mound of similar formation, situated in the edge of the large marsh bordering the bay. It occupies a circular basin of 150 feet diameter by 45 deep. A stream flows from it which at its head is 10 feet wide and 3 deep, and has a considerable current. The odor of sulphur may be perceived at distance of half a mile, though the water is not of extraordinary strength. A bathing-house was in contemplation at this place, but the unusual rise of the lake caused an abandonment of the project.

Springs occur in great numbers on Sulphur creek, town of Lasalle. They occasion mounds of the same character as those near Monroe, and discharge considerable streams. A few of those united, formerly supplied a mill.

In Raisinville, section 19, is a strongly impregnated spring, discharging water sufficient to form a brook.

Another, on section 25, forms the head of Plumb creek.

A spring of moderate strength issues from the margin of the Raisin, half a mile below Dundee.

A strong spring of sulphur and iron is said to be found on Stony creek, town of Exeter, section 21.

On Swan creek, town of Ash, are springs impregnated with sulphur and iron. One on section 36 ascends in a curb several feet above the level of the stream.

These springs all afford a copious supply, and are unaffected by a drought which renders dry the channels of neighboring streams. This fact, with that of their rise above the level of surrounding waters, and their strong impregnation with the minerals, sulphur, lime and iron, proves that they have distant sources, and that they proceed from great depths below the surface.

STREAMS AND SPRINGS.

This county is intersected by a number of considerable streams, following a parallel course to the lake; but small branches do not abound, as in a country of more broken surface. Most of the streams supply a *hard* water.

Water is obtained generally without difficulty from wells and springs affording a good supply, extremely hard. It is occasionally impregnated with sulphur and iron, owing to the proximity of the limerock.

Several wells in the towns of Ash, Lasalle and Ida, sunk twenty feet to rock, opened veins which filled them suddenly, causing them to overflow.

Wells on the plains, which do not descend to the clay, are generally soft; so that by proper precautions, water free from lime may be obtained in those situations.

BOG ORE.

Several deposits of this mineral occur in the neighborhood of Petersburgh and Dundee. The ore is much mixed with silicious matter, and none of it can be considered of the best quality.

On section 19, township of Summerfield, ore is formed on the borders of a marsh of about ten acres. The marsh is fed by springs, and

is unaffected by droughts. The ore is deposited in loose, amorphous masses, mingled with shot ore. The sandy soil of the neighboring plains is much mingled with particles of shot ore, resembling fine gravel. Several hundred loads might be obtained from this locality.

On section 25, ore was discovered in digging a trench through a marshy swale. It is found over about an acre, principally disseminated in the state of shot, through the sandy peat soil, in a stratum not exceeding six inches thickness. In the dry border, some heavy mammillary ore is found, in loose pieces, some of which weigh several pounds.

On a neighboring farm, ore of a similar character was thrown out in ditching. A few loads might be obtained.

Swales similar to the above abound, and other localities of ore will no doubt be found, whenever sufficient inducement shall be offered for its search.

Numerous indications of bog iron were seen in township of Bedford. No valuable deposit came under my observation. A locality is said to exist, supposed to be in quantity, on section 3, (township nine south, range seven east.)

Indications also exist in township of London and elsewhere.

A bed of sandy red ochre is found on section 21, Bedford, covering about three square rods, with a depth of from one to three feet. It is immediately underlayed by limerock. A small quantity has been applied as a paint, and tolerably answers the purpose.

BOULDERS.

Numerous water-worn fragments of the primary rocks are found lodged on the limestone hillocks, and accompanying the ranges of limerock throughout the country, but seldom occur elsewhere upon the surface. Similar boulders are found imbedded in the blue clay deposit.

A large boulder, from the limerock formation, was noticed on section 4, township of Milan.

PHENOMENA ACCOMPANYING THE LIMEROCK.

Sink-holes.—In the township of Whiteford occur a number of those bowl-shaped depressions, known by the name of "sinks." The largest that came under my observation is near the north east corner of the township. This immense basin occupies nearly one hundred acres, and

at the centre is about fifteen feet below the general level. I found the bed to be composed of layers of blue clay and sand, covering at a slight depth limerock.

These *sinks* derive their name from the fact of their being collects for the waters of the surrounding region, which are here absorbed; no outlets being discovered. The waters no doubt disappear in a cavernous aperture of the limerock below. It is stated, on good authority, that when the large sink is filled, a whirlpool may be seen of sufficient force to draw in rails floating near the vortex.

Marks of Diluvial Action.—Upon the surface of the broad flat ledges of limerock at Point au Peaux, was observed a beautiful exhibition of the *grooves and scratches* supposed to be occasioned by attrition of hard bodies moving in a strong current. These have a uniform direction, north, 60 deg. east. In some instances the surface has been worn to a fine polish, which imparts a beautiful light color to the stone, and exhibits the markings as fresh in appearance as if done yesterday.

A similar phenomenon is observable at Brest, and is a fine illustration of the course and moving power of the current. The surface, about twenty square feet of which is exposed, is undulating and worn into curves. Two directions are here observed of the furrows, on contiguous portions of the same ledge; north 50 deg. east, and north 65 deg. west.

Facts of this nature, which singly are of little importance, are noted because they have a bearing upon the results of scientific inquiries; a consequence which, though for a time unheeded and "darkly hid," tends to throw clearer light upon the ultimate plan of useful economy.

My acknowledgments are due to many persons in the above counties for hospitalities, and assistance rendered in the prosecution of the survey.

BELA HUBBARD,
Assistant Geologist.

Detroit, January 26, 1839.

GLOSSARY, including most of the Geological terms used in these Reports, from Lyell's Geology, and other sources.

Alluvial. The adjective of alluvium.

Alluvion. A synonym of alluvium.

Alluvium. Recent deposits of earth, sand, gravel, mud, stones, peat, shell-banks, shell marl, drift-sand, &c., resulting from causes now in action. This term is generally applied to those deposits in which water is the principal agent.

Alum-rocks. Rocks which, by decomposition, form alum.

Amorphous. Bodies devoid of regular form.

Amygdaloid. A trap rock which is porous and spongy, with rounded cavities scattered through its mass. Agates and simple minerals are often contained in these cavities.

Anthracite. A species of mineral coal, hard, shining, black, and devoid of bitumen.

Anticlinal. An anticlinal ridge or axis is where the strata along a line dip contrariwise, like the sides of the roof of a house.

Arenaceous. Sandy.

Argillaceous. Clayey.

Augite. A simple mineral of variable color, from black through green and gray to white. It is a constituent of many volcanic and trappean rocks, and is also found in some of the granitic rocks.

Avalanche. This term is usually applied to masses of ice and snow which have slidden from the summits or sides of mountains. It is now also applied to slides of earth and clay.

Basalt. One of the common trap rocks. It is composed of augite and feldspar, is hard, compact, and dark green or black, and has often a regular columnar aspect of trap rocks. The palisades of the Hudson show the columnar aspect of trap rocks. The Giants' Causeway is cited as an example of Basaltic rocks, and the columnar structure is there very strikingly displayed.

Bitumen. Mineral pitch, which is often seen to ooze from fossil coal when on fire.

Bituminous Shale. A slaty rock, containing bitumen, and which occurs in the coal measures.

Blende. Sulphuret of zinc. A common shining zinc ore.

Bluffs. High banks of earth or rock, with a steep front. The term is generally applied to high banks forming the boundaries of a river, or river alluvions.

Botryoidal. Resembling a bunch of grapes in form.

Boulders. Rocks which have been transported from a distance, and

more or less rounded by attrition or the action of the weather. They lie upon the surface or loose in the soil, and generally differ from the underlying rock in the neighborhood.

Breccia. A rock composed of angular fragments, cemented together by lime or other substances.

Calc Sinter. A German term for depositions of limestone from springs, and waters which contain this mineral in solution.

Calcareous Rocks. A term synonymous with limestones.

Calcareous Spar. Crystallized carbonate of lime.

Carbon. The combustible element of coal.

Carbonates. Chemical compounds containing carbonic acid, which is composed of oxygen and carbon.

Carbonic Acid. An acid gaseous compound, incapable of supporting combustion, and deleterious to animal life. It is common in caves and wells, and many incautious persons lose their lives in consequence of descending, without first ascertaining its presence by letting down a lighted candle. Man cannot live where a candle will not burn freely.

Carboniferous. Coal bearing rocks. This term has been applied to formations belonging to an ancient group of secondary rocks, which contains coal. The term is now used in a more enlarged sense, and may be applied to any rocks containing coal.

Chalybeate. Impregnated with iron.

Chert. A silicious mineral, approaching to chalcedony, flint and hornstone. It is usually found in limestone.

Chlorite. A soft green scaly mineral, slightly unctuous.

Chloritic Slate. Slate containing chlorite.

Clinkstone. A slaty feldspathic or basaltic rock, which is sonorous when struck.

Cleavage. The separation of the laminæ of rocks and minerals in certain constant directions. They are not always parallel to the planes of stratification, but are often mistaken for them.

Coal Formation. Coal Measures. These terms are considered synonymous, and refer to the great deposit of coal in the older secondary rocks, which has been called "the independent coal formation." There are, however, deposits of carbonaceous material in all the geological periods, and several of them might also be called coal formations.

Conformable. When strata are arranged parallel to each other, like the leaves of a book, they are said to be conformable. Other strata lying across the edges of these may be conformable among themselves, but *unconformable* to the first set of strata.

Conglomerate, or Puddingstone. Rocks composed of rounded masses, pebbles and gravel, cemented together by a silicious, calcareous, or argillaceous cement.

Cretaceous. Belonging to the chalk formation.

Crop out, and out crop. Terms employed by geologists and mining engineers, to express the emergence of rock, in place, on the surface of the earth at the locality where it is said to crop out.

Crystalline. An assemblage of imperfectly defined crystals, like loaf sugar and common white marble.

Delta. Alluvial land formed at the mouths of rivers.

Denudation. A term used to express the bare state of the rocks over which currents of water have formerly swept, and laid the rocks bare, or excavated them to form valleys of denudation.

Deoxidize. To separate oxygen from a body.

Detritus. Broken and removed portions of rock which have been operated upon by waters or the atmosphere; frequently transported by currents to great distances.

Dykes. A kind of vein intersecting the strata, and usually filled with some unstratified igneous rock, such as granite, trap or lava. These materials are supposed to have been injected in a melted state into great rents or fissures in the rocks.

Diluvium and *Diluvion.* Deposits of boulders, pebbles and gravel, which many geologists have supposed were produced by a diluvial wave or deluge, sweeping over the surface of the earth.

Dip. Where strata are not horizontal, the direction in which their planes sink or plunge, is called the direction of the dip, and the angle of inclination, the angle of dip.

Dolomite. A magnesian limestone belonging to the primary class. It is usually granular in its structure, and of a friable texture.

Dunes. Sand raised into hills and drifts by the wind.

Earth's Crust. The superficial parts of our planet which are accessible to human observation.

Eocene. The strata deposited under the oldest of the tertiary epochs, as, for example, the Paris Basin.

Estuaries. Inlets of sea into the land. The tides and fresh water streams mingle and flow into them. They include not only the portion of the sea adjacent to the mouths of rivers, but extend to the limit of tide water on these streams.

Exuviæ. In geology, fossil remains.

Fault. A dislocation of strata, at which the layers on one side of a dyke or fissure have slidden past the corresponding ones on the other. These dislocations are often accompanied by a dyke. They vary from a few lines to several hundred feet.

Feldspar. One of the simple minerals, and, next to quartz, one of the most abundant in nature.

Ferruginous. Containing iron.

Fluviatile. Belonging to a river.

Formation. A group of rocks which were formed during a particular period, or which are referred to a common origin.

Fossils. The remains of animals and plants found buried in the earth, or enclosed in rocks. Some of these are but slightly changed, others are petrified, and the organic replaced by mineral matter; some have decayed and left the impression of the bodies, while others have been formed by mineral matter deposited in the cavities left by the decay of the organic body. These last are called *casts.* The term petrifaction is applied to those cases in which organic matter has been replaced by mineral substances. The form and structure of the original body both remain. In casts the exterior form alone is preserved. Fossils are also called organic remains.

Fossiliferous. Containing organic remains.

Galena. An ore of lead composed of lead and sulphur.

Garnet. A simple mineral, which is usually red and crystallized. It is abundant in most primitive rocks.

Gneiss. A stratified primary rock, composed of the same materials as granite, but the mica is distributed in parallel layers, which give it a striped aspect.

Geode. Geodiferous. Geodes are small cavities in rock, generally lined with quartzose or calcareous crystals.

Geology. A science which has for its object to investigate the struc-

ture of the earth, the materials of which it is composed, the manner in which these are arranged, with regard to each other; and it considers the action of all natural causes in producing changes, such as the effects of frost, rain, floods, tides, currents, winds, earthquakes and volcanoes.

Economical Geology refers to the application of geological facts and observations to the useful purposes of civilized life.

Granite. An unstratified rock, composed generally of quartz, feldspar and mica, and it is usually associated with the oldest of the stratified rocks.

Graywacke, Grauwacke. A group of strata in the transition of rocks —but the term has been so indefinitely applied, that other names will probably be substituted.

Greenstone. A trap rock composed of hornblende and feldspar.

Grit. A coarse-grained sandstone.

Gypsum. A mineral, composed of sulphuric acid and lime, and extensively used as a stimulant manure, and for making stucco and plaster casts, &c. It is also called Plaster of Paris.

Hornblende. A mineral of a dark green or black color, and which is a constituent part of greenstone.

Hornstone. A silicious mineral, approaching to flint in its character.

In Situ. In their original position where they were formed.

Laminæ. The thin layers into which strata are divided, but to which they are not always parallel.

Lacustrine. Belonging to a lake. Depositions formed in ancient as well as modern lakes, are called lacustrine deposits.

Landslip. The removal of a portion of land down an inclined surface. It is in consequence of the presence of water beneath, which either washes away the support of the superincumbent mass, or so saturates the materials, that they become a slippery paste.

Line of Bearing, is the direction of the intersection of the planes of the strata with the plane of the horizon.

Lignite. Wood naturally carbonized and converted into a kind of coal in the earth.

Littoral. Belonging to the shore.

Loam. A mixture of sand and clay.

Mural Escarpment. A rocky cliff with a face nearly vertical, like a wall.

Mammillary. A surface studded with smooth small segments of spheres, like the swell of the breasts.

Mammoth. An extinct species of the elephant.

Marl. By this term an argillaceous carbonate of lime is usually implied. By custom, its signification is much more extended, and means mineral substances, which act as stimulating or fertilizing manures. There are clay marls, shell marls, and various others.

Marly clay. Clay containing carbonate of lime.

Mastodon. A genus of extinct fossil animals allied to the elephant. They are so called from the form of the grinders, which have their surfaces covered with conical mammillary crests.

Matrix. The mineral mass in which a simple mineral is imbedded, is called its *matrix* or *gangue.*

Megatherium. A fossil extinct quadruped, resembling a gigantic sloth.

Mechanical origin, Rocks of. Rocks composed of sand, pebbles or fragments, are so called, to distinguish them from those of a uniform crystalline texture, which are of chemical origin.

Mica. A simple mineral having a shining silvery surface, and capable of being split into very thin elastic leaves or scales. The brilliant scales in granite and gneiss are mica.

Mica Slate. One of the stratified rocks belonging to the primary class. It is generally fissile, and is characterized by being composed of mica and quartz, of which the former either predominates, or is disposed in layers, so that its flat surfaces give it the appearance of predominating.

Miocene. One of the deposits of the tertiary epoch. It is more recent than the *eocene,* and older than the pliocene.

Mollusca. Molluscous animals. "Animals such as shell fish, which, being devoid of bones, have soft bodies."

Mountain Limestone. "A series of limestone strata, of which the geological position is immediately below the coal measures, and with which they also sometimes alternate."

Muriate of Soda. Common salt.

Naphtha. A fluid, volatile, inflammable mineral, which is common

in volcanic districts, and in the vicinity of the salt springs of the United States.

New Red Sandstone. "A series of sandy and argillaceous, and often calcareous strata, the prevailing color of which is brick red, but containing portions which are greenish gray. These occur often in spots and stripes, so that the series has sometimes been called the variegated sandstone. The European, so called, lies in a geological position immediately above the coal measures."

Nodule. A rounded, irregular shaped lump or mass.

Old Red Sandstone. "A stratified rock belonging to the carboniferous group of Europe."

Oolite, oolitic. "A limestone, so named, because it is composed of rounded particles, like the roe or eggs of fish. The name is also applied to a large group of strata characterized by peculiar fossils."

Organic Remains. See Fossils.

Orthoceratite. The remains of an extinct genus of molluscous animals, called Cephalopoda. The orthoceratites are long, straight, conical chambered shells.

Out-crop. See Crop out.

Out-liers. Hills or ranges of rock strata, occurring at some distance from the general mass of the formations to which they belong. Many of these have been caused by denudation, having removed parts of the strata which once connected the out-liers with the main mass of the formation.

Oxide. A combination of oxygen with another body. The term is usually limited to such combinations as do not present active acid or alkaline properties.

Palæontology. A science which treats of fossil remains.

Pisolite. A calcareous mineral, composed of rounded concretions, like peas.

Pliocene. The upper, or more recent tertiary strata. This group of strata is divided into the older and newer pliocene rocks.

Petroleum. A liquid mineral pitch. It is common in the region of salt springs in the United States.

Porphyry. A term applied to every species of unstratified rock, in which detached crystals of feldspar are diffused through a compact base of other mineral composition.

Productus. An extinct genus of fossil bivalve shells.

Plastic Clay. One of the beds of the Eocene period. The plastic clay formation is mostly composed of sands with associate beds of clay.

Pudding Stone. See *Conglomerate.*

Pyrites. A mineral, composed of sulphur and iron. It is usually of a brass yellow, brilliant, often crystallized, and frequently mistaken for gold.

Quartz. A simple mineral, composed of silex. Rock crystal is an example of this mineral.

Rock. All mineral beds, whether of sand, clay, or firmly aggregated masses, are called rocks.

Sandstone. A rock composed of aggregated grains of sand.

Saurians. Animals belonging to the lizard tribe.

Schist. Slate.

Seams. "Thin layers which separate strata of greater magnitude."

Secondary Strata. "An extensive series of the stratified rocks, which compose the crust of the globe, with certain characters in common, which distinguish them from another series below them, called primary, and another above them, called tertiary."

Sedimentary Rocks, are those which have been formed by their materials having been thrown down from a state of suspension or solution in water.

Selenite. Crystallized gypsum.

Septaria. Flattened balls of stone, which have been more or less cracked in different directions, and cemented together by mineral matter which fill the fissures.

Serpentine. A rock composed principally of hydrated silicate of magnesia. It is generally an unstratified rock.

Shale. An indurated slaty clay, which is very fissile.

Shell Marl—Fresh water Shell Marl. A deposit of fresh water shells, which have disintegrated into a gray or white pulverulent mass.

Shingle. The loose water-worn gravel and pebbles on shores and coasts.

Silex. The name of one of the pure earths which is the base of flint, quartz, and most sands and sandstones.

Silicious. Containing silex.

Silt. "The more comminuted sand, clay and earth, which is transported by running water."

Simple Minerals, are composed of a single mineral substance. Rocks are generally aggregates of several simple minerals cemented together.

Slate. A rock dividing into thin layers.

Stalactite. Concreted carbonate of lime, hanging from the roofs of caves, and like icicles in form.

Stalagmites. Crusts and irregular shaped masses of concreted carbonate of lime, formed on the floors of caves, by deposits from the dripping of water.

Stratification. An arrangement of rocks in strata.

Strata. Layers of rock parallel to each other.

Stratum. A layer of rocks; one of the strata.

Strike. The direction in which the edges of strata crop out. It is synonymous with line of bearing.

Syenite and *Sienite.* A granite rock in which hornblende replaces the mica.

Synclinal line and *Synclinal Axis.* When the strata dip downward in opposite directions, like the sides of a gutter.

Talus. In geology, a sloping heap of broken rocks and stones at the foot of many cliffs.

Tertiary Strata. "A series of sedimentary rocks, with characters which distinguish them from two other great series of strata—the secondary and primary—which lie beneath them."

Testacea. "Molluscous animals, having a shelly covering."

Tepid. Warm.

Thermal. Hot.

Thin out. Strata which diminish in thickness until they disappear, are said to *thin out.*

Trap—Trappean Rocks. Ancient volcanic rocks, composed of feldspar, hornblende and augite. Basalt, greenstone, amygdaloid and dolomite, are trap rocks.

Travertin. "A concretionary limestone, hard and semi-crystalline, deposited from the water of springs."

Tufa Calcareous. "A porous rock, deposited by calcareous waters

on exposure to air, and usually containing portions of plants and other organic substances incrusted with carbonate of lime."

Tufaceous. A texture of rock like that of tuff.

Tuff or *Tufa.* "An Italian name for a volcanic rock of an earthy texture."

Unconformable. See conformable.

Veins. Cracks and fissures in rocks filled with stony or metallic matter. Most of the ores are obtained from metallic veins.

Zoophytes. Coral sponges and other aquatic animals allied to them.

REPORT of Doctor John Wright, Botanist of the Geological Survey.

DETROIT, JANUARY 1st, 1839.

To Douglass Houghton, State Geologist:

SIR: In compliance with the act passed by the State Legislature, March, 1838, providing for a geological survey of the State, the undersigned respectfully submits the following

REPORT:

The examinations in the botanical department of the survey, during the past season, have been made in the two most southern ranges of counties of the State, from the Detroit River to Lake Michigan, excepting the county of Monroe; and in St. Clair county.

The extensive requisitions of the bill, making it obligatory on those engaged in investigating the natural history of the State, to collect and preserve as far as practicable, seventeen specimens of each kind of its products, has been the principal inducement for confining the sphere of action to the above mentioned portions of the State. The bulky apparatus necessary to be conveyed from place to place, during the excursions, for the preservation of the plants in such extensive collections, and the requisite conveniences for drying and protecting them, render it impracticable to examine a very great extent of country, and particularly such portions of it as are unsettled, during a single season, or until the principal mass is collected.

The plan adopted during the past season, was to make the collections in the more inhabited portions, or in such situations of the country as are the most favorable for the preservation of the plants, and get together, as far as possible, the required number of those species which are found in them.

The parts which we have examined, undoubtedly contain the majority of the whole number of species which grow in the State; and as they are sufficiently settled to possess the requisite facilities for acquiring such extensive collections, we have been enabled to accumulate a large number of specimens, which could not have been collected under any other circumstances; and, at the same time, to include in them the majority of the individual plants of the State; thereby preventing the embarrassing necessity of securing this extensive mass while investigating larger and less inhabited tracts, where these facilities are not offered.

With the able assistance of Mr. George H. Bull, assistant botanist, I have been enabled to examine between eight and nine hundred native or naturalized species of phenogamous or flowering plants; and to collect specimens of each, illustrative of their character, amounting in all, to about nine thousand, which are now in an excellent state of preservation. More than this number of species were observed growing in the counties examined, but they were not in a proper condition for the selection of specimens for preservation at the time of observation.

A considerable number of cryptogamous or flowerless plants, were also noticed and secured.

It has been our object, while making these collections, to select those specimens which will exhibit all the characters of the individuals; and for this purpose, all parts of the plants have been taken as far as time and opportunity would admit of.

The herbaceous plants, when not too large, have been kept entire, including their roots, stems, leaves and flowers; and when too large, suitable portions of each have been taken to illustrate them: of the woody ones, small branches with their leaves, and when practicable flowers and fruit have been selected for the purpose; and it is intended to make the suit more perfect by procuring sections of their trunks, which want of time prevented us from doing during the botanizing season. The size of the paper sheet used for holding them, is 12 by 17 inches;

thus allowing of the preservation of ample sized ones, which have accordingly been chosen. It has also been considered necessary to a complete herbarium, that the ripe seeds should be added, and those of a considerable number of species have been obtained for this object.

Observations relating to the individual plants have been made, with reference to their economical and medicinal uses; and to their correct analysis and individual characters. It is not my intention in this report, to give a detailed account of such observations; for this would obviously be improper, as the investigations are not finished, and, in consequence, not sufficiently complete to allow of their being made at the present time; or, if made, would cause unnecessary repetition in the final report.

For these reasons, I have thought it advisable to confine the notice of the plants, at present, to a catalogue of their names, reserving a detailed account of them for a final report; and endeavor, in the mean time, to collect such facts in regard to them as opportunity shall offer, as will be of use both in a practical and scientific point of view.

It is my intention to examine, hereafter, those portions of the State which have not been explored, and render the collections as complete as possible.

The accompanying catalogue embraces the phenogamous and filicoid plants which have been collected.

JOHN WRIGHT,
Botanist.

CATALOGUE.

A.

Acalypha virginica, Linn.* Three seed mercury.
Acer eriocarpum, Mx. Silver maple.
nigrum, Mx. Black maple.
saccharinum, Linn. Hard maple. Sugar maple.
Achillea millefolium, Linn. Yarrow. Milfoil.
Acnida cannabina, Linn. Water hemp. Indian hemp.

*For abbreviations of authors' names, see the end of the catalogue.

Acorus calamus, Linn. Sweet flag.
Actaea alba, Bw. White cohosh.
racemosa, Linn. Cohosh. Black snake root.
rubra, Bw. Baneberry.
Actinomeris squarrossa, Nutt.
Adiantum pedatum, Linn. Maiden-hair.
Aesculus glabra, Ww. Small buck-eye.
Agrimonia Eupatoria, Linn. Agrimony.
Agropyron caninum, R. and S.
Agrostemma Githago, Linn. Cockle.
Agrostis alba, Linn. White-top.
clandestina? Sprengel.
lateriflora, Mx.
tenuiflora, Ww.
vulgaris, Smith. Red-top.
Aira cespitosa, Linn.
Aletris farinosa, Linn. False aloe.
Alisma Plantago, Linn. Water plantain.
Allium canadense, Linn. Meadow garlic.
cernuum, Roth.
tricoccum, Aiton. Three-seed leek.
Alnus serrulata, Ww. Alder.
Alopecurus geniculatus, Linn. Fox-tail.
Amaranthus hybridus, Linn.
Ambrosia elatior, Linn. Hog-weed.
trifida, Linn.
Amelanchier Botryapium, Lind. Shad-bush. June-berry.
ovalis, Lind. Medlar bush.
sanguinea, D. C.
Amorpha canescens, Nutt. Lead-plant.
Amphicarpa monoica, Elliott.
Andromeda calyculata, Linn. Leather-leaf.
polifolia, Linn. Wild rosemary.
Anemone aconitifolia, Mx.
nemorosa, Linn. Wood anemone.
virginiana, Linn. Wind-flower.

Andropogon furcatus, Muhl. Fork-spike.
nutans, Linn. Beard-grass.
scoparius, Mx. Broom-grass.
virginicus, Linn.
Angelica atropurpurea, Linn. High angelica.
triquinata, Mx.
Anethum foeniculum. Fennel.
Anthemis cotula, Linn. May-weed.
Apios tuberosa, Moenchausen. Ground-nut.
Apocynum androsaemifolium, Linn. Dog-bane.
hypericifolium, Aiton. Indian hemp.
Arabis canadensis, Linn. Sickle-pod.
laevigata, D. C.
lyrata, Linn.
sagittata, Torrey.
Aralia nudicaulis, Linn. Wild sarsaparilla.
racemosa, Linn. Spikenard.
Arbutus Uva-ursi, Linn. Bearberry.
Archemora ambigua, D. C.
Arctium lappa, Linn. Burdock.
Arethusa bulbosa, Linn. Arethusa.
Arenaria stricta, Mx.
lateriflora, Linn.
Aristida stricta, Mx.
Arum triphyllum, Linn. Wild turnip. Wake robin.
Artemisia canadensis, Mx. Wild wormwood.
Arundo canadensis, Mx. Reed-grass.
coarctata, Torrey.
Asarum canadense, Linn. Wild ginger.
Asclepias incarnata, Linn.
lanceolata, Ives.
phytolaccoides, Lyon.
purpurascens, Linn.
syriaca, Linn. Milk-weed.
tuberosa, Linn. Pleurisy-root. White-root.
verticillata, Linn.
Aspidium acrostichoides, Ww.

Aspidium asplenoides, Linn.
bulbiferum, Ww.
filix-femina, Ww.
intermedium, Muhl.
nove-boracensis, Ww.
thelypteris, Ww.
Asplenium angustifolium, Mx.
thelypteroides, Mx. Silvery spleenwort.
Aster acuminatus, (?) Mx.
corymbosus, Aiton.
diversifolius, Mx. (?)
laxus, Ww.
paniculatus, Aiton.
salicifolius, (?) Pursh.
sericeus, Nutt.
tradescanti, Ww.
Astragalus canadensis, Linn. Milk vetch.
Atheropogon apludoides, Muhl. Beard-grass.

B.

Baptisia alba, Ww.
tinctoria, Brown. Wild indigo.
Batschia canescens, Mx. Puccoon. False bugloss.
Betula excelsa, Aiton. Yellow birch.
glandulosa, Mx. Scrub birch.
papyracea, Ww. Paper birch. Canoe birch.
Bidens Beckii, Torrey. Water marigold.
Bidens cernua, Linn.
frondosa, Linn. Burr marigold. Cuckold.
petiolata, Nutt.
Blephilia ciliata, Rafinesque.
hirsuta, Rafinesque.
Blitum virgatum, Linn. Slender blite.
Botrychium fumaroides, Ww. Grape fern.
virginicum, Swartz. Rattlesnake fern.
Brachyelytrum aristatum, P. de B. False drop-grass.
Bromus ciliatus, Linn.

Bromus pubescens, Linn.
purgans, Linn.
secalinus, Linn. Chess.
Buchnera Americana, Linn. Blue hearts.

C.

Cacalia atriplicifolia, Linn.
tuberosa, Nutt.
Cakile Americana, Nutt. Sea rocket.
Calla palustris, Linn. Water arum.
Calopogon pulchellus, Brown. Grass pink.
Caltha palustris, Linn. American cowslip.
Campanula Americana, Linn.
erinoides, Muhl. Prickly bell-flower.
rotundifolia, Linn. Flax bell-flower
Cannabis sativa, Linn. Hemp.
Capsella bursa-pastoris, Moenchausen. Shepherd's purse.
Cardamine hirsuta, Linn.
pratensis, Linn.
rhomboidea, D. C.
Carex acuta, Linn.
alba v. setifolia, Dewey.
ampullacea, Gmelin.
anceps, Schkuhr.
aquatilis, Wahlenberg.
aurea, Nutt.
bromoides, Schkuhr.
bullata, Schkuhr.
cephalophora, Ww.
cespitosa, Linn.
collecta? Dewey.
conoidea, Schkuhr.
crinita, La Marck.
cristata, Schwinitz.
curta, Gmelin.
Deweyana, Schwinitz.
disperma, Dewey.

Carex festucacea, Schkuhr.
filiformis, Gmelin.
flava, Linn.
folliculata, Linn.
formosa, Dewey.
gracillima, Schwinitz.
granularis, Muhl.
hystericina, Ww.
lagopodioides, Schkuhr.
lacustris, Ww.
laxiflora, LaMarck.
limosa, Linn.
lupulina, Muhl.
marginata, Muhl.
miliacea, Muhl.
nigro-marginata? Schwinitz.
Œderi, Ehrhart.
paniculata, Linn.
polytrichoides, Muhl.
pseudo cyperus, Linn.
pubescens, Muhl.
retrorsa, Schwinitz.
scabrata, Schwinitz.
setacea, Dewey.
squarrosa, Linn.
stellulata, Schreber.
stipata, Muhl.
straminea, Ww.
sylvatica.
tenera? Dewey.
tentaculata, Muhl.
teretiuscula, Gmelin.
trichocarpa, Muhl.
trisperma, Dewey.
varia?
virescens, Muhl.
xanthophysa, Wahlenberg.

All of the marsh hay made in the State is composed of more or less of the species of the preceding genus.

Carpinus Americana, Mx. Horn-beam.

Carya amara, Nutt. Bitternut.

porcina, Nutt. Pignut.

Cassia marylandica, Linn. American senna.

Ceanothus Americanus, Linn. New Jersey tea.

Celastrus scandens, Linn. Climbing staff-tree.

Celtis crassifolia, LaMarck. Hoop ash.

Cenchrus echinatus v. tribuloides, Torrey. Burr-grass.

Centaurella paniculata Mx. Screw-stem.

Cephalanthus occidentalis, Linn. Button-bush.

Cerastium vulgatum, Linn. Chickweed.

Chelone glabra, Linn. Snakehead.

Chenopodium album, Linn. Pigweed.

ambrosioides, Linn. Sweet pigweed.

botrys, Linn. Oak of Jerusalem.

hybridum, Linn.

rubrum, Linn.

Chrysosplenium Americanum, Swartz.

Cicuta bulbifera, Linn.

maculata, Linn. Water hemlock.

Cinna arundinacea, Ww.

Circaea alpina, Linn.

Leutetiana, Persoon. Enchanter's nightshade.

Claytonia virginica, Linn. Spring beauty.

Clematis virginica, Linn. Virgins' bower.

Clintonia borealis, Rafinesque. Wild lily of the valley.

Cnicus discolor, Ww. Thistle.

glutinosus, Bw.

lanceolatus, Ww.

odoratus, Muhl.

Pitcheri, Torrey.

Collinsia verna, Nutt.

Collinsonia canadensis, Linn. Horse balm.

Commelina angustifolia, Mx.

Comptonia asplenifolia, Aiton. Sweet-fern.

Convallaria multiflora, Ww. Giant Solomon's seal.
Convolvulus Sepium, Linn. Wild morning glory.
spithameus, Linn. Dwarf morning glory.
Coptis trifolia, Salisbury. Gold thread.
Corallorhiza multiflora, Nutt.
verna, Nutt. Coral-root.
Coreopsis palmata, Nutt.
trichosperma, Mx.
tripteris, Ww. Tick-seed sunflower.
Coriandrum sativum, Linn. Coriander.
Cornus canadensis, Linn.
circinata, Schwinitz.
florida, Linn. Dogwood.
paniculata, L'Heritier.
sericea, L'Heritier.
Corylus americana, Walter. Hazle-nut.
Crataegus coccinea, Linn. Thorn-bush.
punctata, Jacquin. Thorn-tree.
Cryptotaenia canadensis, D. C.
Cuscuta americana, Linn. Dodder.
Cynoglossum amplexicaule, Mx. Wild comfrey.
officinale, Linn. Hound-tongue.
Cyperus alterniflorus, Schwinitz.
flavescens, Linn.
mariscoides, Elliott.
phymatodes? Muhl.
strigosus, Linn.
Cypripedium acaule, Aiton. Ladies' slipper.
pubescens, Swartz. Mocassin-flower.
spectabile, Swartz.

D.

Dalibarda fragaroides, Mx. Dry strawberry.
Danthonia spicata, P. deB. Wild oats.
Datura Tatula, Linn. Purple thorn-apple.
Decodon verticillatum, Elliott. Swamp willow-herb.
Dentaria diphylla, Mx. Tooth-root. Pepper-root.

Dentaria laciniata, Muhl.
Desmodium acuminatum, D. C.
bracteosum, D. C.
canadense, D. C. Bush trefoil.
canescens, D. C.?
ciliare, D. C.
laevigatum, D. C.
marylandicum, D. C.
nudiflorum, D. C.
obtusum, D. C.
paniculatum, D. C.
rotundifolium, D. C.
strictum, D. C.
Diarrhena Americana, P. de B.
Diervilla canadensis, Ww. Bush honeysuckle.
Digitaria filiformis, Elliott.
sanguinalis, Scopoli. Finger-grass.
Dioscorea villosa, Linn. Yam-root.
Dracocephalum virginianum, Ww. Dragon-head.
Drosera longifolia, Linn.
rotundifolia, Linn. Sundew.
Dulichium spathaceum, Persoon. Galingale.

E.

Eleusine indica, LaMarck.
Elymuscanadensis, v. glaucifolius, Torrey.
Hystrix, Linn. Hedgehog-grass.
villosus, Muhl. Lime-grass.
virginicus, Linn. Wild rye.
Epigaea repens, Linn. Trailing arbutus.
Epilobium coloratum, Muhl.
lineare, Muhl.
molle, Torrey.
Epiphegus virginianus, Barton. Beechdrops.
Erigeron bellidifolius, Ww.
canadense, Linn. Flea-bane.
heterophyllus, Muhl.

Erigeron philadelphicus, Linn.
strigosus, Muhl.
Eriocaulon pellucidum, Mx.
Eriophorum angustifolium? Bw.
polystachyon, Linn. Cotton-grass.
Eryngium aquaticum, Linn. Button snake-root.
Erythronium americanum, Smith. Dog-tooth violet.
Euchroma coccinea, Nutt. Painted-cup.
Euonymus americanus, Linn.
obovatus, Nutt.
Eupatorium ageratoides, Linn.
amoenum, Pursh.
perfoliatum, Linn. Boneset. Thoroughwort.
sessilifolium, Linn.
Euphorbia corollata, Linn.
maculata, Linn.
polygonifolia, Linn.
Equisetum arvense, Linn. Horse-tail.
hyemale, Linn. Scouring rush.
limosum, Torrey.

F.

Fagus sylvatica, Linn. Beech.
Festuca duriuscula? Linn.
nutans, Ww.
tenella, Ww.
Fragaria virginiana, Linn. Strawberry.
Frasera caroliniensis, Walter. Columbo.
Fraxinus acuminata, LaMarck. White ash.
pubescens, Walter. Red ash.
sambucifolia, Ww. Black ash.
Fuirena squarrosa, Mx.

G.

Galeopsis tetrahit, Linn. Flowering nettle.
Galium asprellum? Mx.
boreale, Pursh.
circaezans, Mx.

Galium lanceolatum, Torrey.
obtusum, Bw.
pilosum, Aiton.
tinctorium, Linn. Wild madder.
trifidum, Linn.
Gaultheria hispidula, Muhl.
procumbens, Linn. Wintergreen.
Gaura biennis, Linn. Virginia loosestrife.
Gentiana crinita, Froelich. Fringed gentian.
quinqueflora, Ww.
saponaria, Linn. Soap gentian.
Geranium maculatum, Linn. Crane's bill.
robertianum, Linn.
Gerardia auriculata, Mx.
flava, Linn. False foxglove.
glauca, Eddy.
pedicularia, Linn.
purpurea, Linn.
Geum rivale, Linn. Purple avens.
strictum, Aiton. Upright avens.
virginianum, Linn. Avens.
Gleditschia triacanthos, Linn. Honey locust.
Glyceria fluitans, Brown. Water fescue-grass.
Gnaphalium plantagineum, Linn.
polycephalum, Mx. Life everlasting.
uliginosum, Linn. Cud-weed.
Goodyera pubescens, Brown. Rattlesnake plantain.
Gyromia virginica, Nutt. Indian cucumber.

H.

Habenaria bracteata, Brown. Vegetable satyr.
ciliaris, Brown. Orchis.
dilatata, Pursh. Giant orchis.
fimbriata, Brown.
grandiflora, Torrey.
herbiola, Brown.
huronensis, Sprengel.

Habenaria orbiculata, Pursh.
psycodes, Sprengel.
tridentata, Hooker.
Hamamelis virginica, Linn. Witch hazel.
Hedeoma pulegioides, Person. Pennyroyal.
Helenium autumnale, Linn.
Helianthemum canadense, Mx. Rock rose.
Helianthus altissimus, Linn.
divaricatus? Linn.
frondosus, Ww.
giganteus, Linn.
gracilis.
strumosus, Linn.
trachelifolius, Ww.
Heliopsis laevis, Persoon.
Hepatica acutiloba, D. C.
Americana, D. C. Liverwort.
Heracleum lanatum, Mx. Master-wort. Cow parsnep.
Heuchera Americana, Linn. Alum root.
Hibiscus trionum, Linn.
Hieracium gronovii, Linn.
kalmii, Linn.
marianum, Ww.
paniculatum, Linn.
scouleri, Hedwig.
venosum, Linn. Blood-wort.
Hippophae canadensis, Ww. Sea buckthorn.
Hippuris vulgaris, Linn.
Houstonia ciliolata, Torrey.
Hydrastis canadensis, Linn. Golden seal. Yellow-root.
Hydrocotyle umbellata, Linn.
Hydropeltis purpurea, Mx. Water shield.
Hydrophyllum canadense, Linn. Rough burr-flower.
virginicum, Linn. Burr-flower.
Hypericum ascyroides, Ww.
canadense, Linn.
parviflorum, Ww.

Hypericum prolificum, Linn.
punctatum, La Marck.
virginicum, Linn.
Hypoxis erecta, Linn. Star-grass.
Hyssopus nepetoides, Ww. Giant hyssop.
scrophularifolius, Ww.

I.

Ictodes foetidus, Bw. Skunk cabbage.
Impatiens fulva, Nutt. Speckled jewels.
pallida, Nutt. Jewel-weed.
Inula helenium, Linn. Elecampane.
Iris versicolor, Linn. Wild flag.
Isnardia palustris, Linn. Water purslane.

J.

Juncus acuminatus, Mx.
bufonius, Linn.
effusus, Linn. Bulrush.
nodosus, Linn.
polycephalus, Mx.
setaceus, Rostk.
tenuis, Ww.
Juniperus communis, Linn. Juniper.
virginianus, Linn. Red cedar.

K.

Kalmia glauca, Aiton. Swamp laurel.
Krigia amplexicaulis, Mx.
Koeleria nitida, Nutt.
pennsylvanica, D. C.
truncata, Torrey.
Kuhnia critonia, Ww.

L.

Lactuca elongata, Muhl. Wild lettuce.
sanguinea, Bw. Wood lettuce.
Lathyrus ochroleucus, Hooker.
myrtifolius, Muhl.

Lathyrus palustris, Linn. Marsh pea.
venosus, Muhl.
Laurus benzion, Linn. Spice-bush. Fever-bush.
sassafras, Linn. Sassafras tree.
Lechea major, Mx. Pinweed.
Leersia oryzoides, Swartz. Cut-grass.
virginica, Ww. White-grass. Rice-grass.
Lemna minor, Linn. Green duck-meat.
polyrrhiza, Linn. Water flax-seed.
trisulca, Linn. Duck-meat.
Leontice thalictroides, Linn. Pappoose-root. False cohosh.
Leontodon taraxacum, Linn. Dandelion.
Leonurus cardiaca, Linn. Motherwort.
Lepidium virginicum, Linn. Culver's physic.
Lespedeza angustifolia, Elliott.
capitata, Mx.
polystachia, Mx.
prostrata? Pursh.
reticulata, Persoon.
violacea, Persoon.
Liatris cylindrica, Mx.
scariosa, Ww.
spicata, Ww. Gay feather.
squarrosa? Ww.
Lilium canadense, Linn. Nodding lily.
philadelphicum, Linn. Red lily.
Lindernia attenuata, Muhl. False hedge-hyssop.
dilatata, Muhl. Pimpernel.
Linnaea borealis, Gronovius. Twinflower.
Linum, usitatissimum, Linn. Flax.
virginianum, Linn. Wild flax.
Liriodendron tulipifera, Linn. Whitewood. Tulip tree.
Lithospermum officinale, Linn. Gromwell.
Lobelia cardinalis, Linn. Cardinal-flower.
claytoniana, Mx.
kalmii, Linn.
siphilitica, Linn.

Lolium temulentum, Linn.
Lonicera parviflora, LaMarck.
Ludwigia alternifolia, Ww. Seed box.
Lupinus perennis, Linn. Wild lupine.
Luzula campestris, D. C.
pilosa, Ww.
Lycopus europeus, Linn. Water horehound.
virginicus, Linn. Bugle-weed.
Lysimachia capitata, Pursh.
ciliata, Linn. Money-wort.
hybrida, Mx.
quadrifolia, Linn.
revoluta, Nutt.
stricta, Aiton. Loosestrife.
Lythrum Salicaria, Pursh. Milk willow-herb.
Lycopodium complanatum, Linn. Ground pine.
lucidulum, Mx. Moon-fruit pine.

M.

Malaxis liliifolia, Ww. Twayblade.
Malva rotundifolia, Linn. Low mallows.
Marrubium vulgare, Linn. Horehound.
Melanthium glaucum, Nutt.
Menispermum canadense, Linn. Moon-seed.
Mentha borealis, Mx. Horse-mint.
piperita, Smith. Peppermint.
Menyanthes trifoliata, Linn. Buck-bean.
Microstylis ophioglossoides, Nutt.
Milium effusum, Linn. Millet.
pungens, Torrey. Dwarf millet grass.
Mimulus alatus, Linn.
ringens, Linn. Monkey-flower.
Mitchella repens, Linn. Checker-berry. Partridge-berry.
Mitella cordifolia, LaMarck.
diphylla, Linn. Current-leaf.
Momordica echinata, Muhl.
Monarda allophylla, Mx.

Monarda punctata, Linn.
Mollugo verticillata, Linn. Carpet weed.
Monotropa uniflora, Linn. Indian pipe birds' nest.
Muhlenbergia diffusa, Schreber. Dropseed grass.
Myriophyllum verticillatum, Linn. Water milfoil.

N.

Nasturtium amphibium, Brown. Water radish.
natans, D. C.
palustre, D. C.
Nemopanthes canadensis, D. C. Wild holly. Mountain holly.
Nemophila paniculata, Sprengel.
Nepeta cataria, Linn. Catnip.
Nicandra physaloides, Persoon.
Nuphar advena, Aiton.
kalmiana, Aiton.
Nymphaea odorata, Aiton. White pond lily.
Nyssa multiflora, Walter. Pepperidge.

O.

Œnothera biennis, Linn. Scabish.
fruticosa, Linn. Sundrops.
muricata, Linn.
pumila, Linn.
Onoclea sensibilis, Linn. Sensitive-fern.
Onosmodium hispidum, Mx. False gromwell.
Orobanche americana, Linn.
uniflora, Linn. Squaw-root. Cancer-root.
Oryzopsis asperifolia, Mx. Mountain rice.
Osmorhiza brevistylis, D. C.
longistylis, D. C. Sweet cicily.
Osmunda cinnamomea, Linn. Flowering fern.
interrupta, Mx.
regalis, Mx.
Ostrya virginica, Ww. Hop hornbeam. Iron wood.
Oxalis stricta, Linn. Yellow wood sorrel. Sheep sorrel.
Oxycoccus macrocarpus, Pursh. Cranberry.

P.

Panax quinquefolia, Linn. Ginseng.
trifolia, Linn. Dwarf ground-nut.
Panicum capillare, Linn.
crus-galli, Linn. Barn-grass.
dichotomum? Linn.
nervosum, Muhl.
nitidum, LaMarck, and varieties. Panic-grass.
pubescens, LaMarck.
virgatum, Linn.
Parnassia Americana, Muhl. Flowering plantain.
Pastinaca sativa, Linn. Parsnep.
Pedicularis canadensis, Linn. Louse-wort.
pallida, Pursh.
Penthorum sedoides, Linn. Virginian orpine.
Pentstemon pubescens, Aiton. Beard-tongue.
Phalaris Americana, Elliott. Wild canary-grass.
Phaseolus diversifolius, Persoon.
Phleum pratense, Linn. Timothy-grass.
Phlox aristata, Mx.
Phragmites communis, Trinius. Common reed.
Phryma leptostachya, Linn. Lopseed.
Physalis obscura, Mx. Ground cherry.
Phytolacca decandra, Linn. Poke-berry.
Pinus pendula, Aiton. Tamarack. Hackmatack.
resinosa, Aiton. Yellow pine. Norway pine. Red pine.
strobus, Linn. White pine.
Piptatherum nigrum, Torrey. Clustered millet-grass.
Pisum maritimum, Linn.
Plantago cordata, LaMarck.
lanceolata, Linn. Snake plantain.
major, Linn. Plantain.
Platanus occidentalis, Linn. Buttonwood. Sycamore.
Poa annua, Linn.
aquatica v. Americana, Torrey.
capillaris, Linn.
compressa, Linn. Blue-grass.

Poa eragrostis, Linn.
hirsuta, Mx.
nemoralis, Linn.
nervata, Ww.
pratensis, Linn. English-grass. Meadow-grass.
reptans, Mx.
serotina, Ehrhart.
trivialis, Linn. Pasture-grass.
Podophyllum peltatum, Linn. Mandrake. May apple.
Pogonia ophioglossoides, Brown. Snake-mouth arethusa.
Polanisia graveolens, Rafinesque.
Polygala cruciata, Nutt.
paucifolia, Ww. Flowering wintergreen.
paucifolia v. alba, Eights.
purpurea, Nutt.
senega, Linn. Seneca snake-root.
verticillata, Linn. Dwarf snake-root.
Polygonum amphibium, Linn. Mud knot-weed.
arifolium, Linn.
aviculare, Linn. Knot-grass.
convolvulus, Linn. Bind knot-weed.
fagopyrum, Linn. Buckwheat.
lapathifolium, Linn.
mite, Persoon. Tasteless knot-weed.
pennsylvanicum, Linn.
persicaria, Linn. Heart's ease. Lady's thumb.
punctatum, Elliott. Water pepper.
sagittatum, Linn.
scandens, Linn.
tenue, Mx.
virginianum, Linn.
Polymnia canadensis, Linn. White leaf-cup.
uvedalia, Linn. Yellow leaf-cup.
Polypogon racemosus, Nutt.
Pontederia cordata, Linn. Pickerel-weed.
Populus canadensis, Mx.
candicans, Aiton. Balsam poplar.

Populus grandidenta, Mx. Tree poplar.
tremuloides, Mx. White poplar. American aspen.
Porcelia triloba, Persoon. Pawpaw. Custard apple.
Portulacca oleracea, Linn. Purslane.
Potamogeton heterophyllum, Schreber.
natans, Linn. Pond-weed.
lucens, Linn.
pectinatum, Linn.
perfoliatum, Linn.
zosterifolium, Trinius.
Potentilla anserina, Linn. Tansey cinquefoil. Silver leaf.
arguta, Pursh.
canadensis, Linn. Five-finger.
comarum, D. C. Marsh five-finger.
fruticosa, Linn. Shrubby cinquefoil.
norvegica, Linn. Cinquefoil.
Prenanthes racemosa, Mx.
serpentaria, Pursh.
Prinos verticillatus, Linn. Winterberry. False alder.
Prunella vulgaris, Linn. Heal all. Self heal.
Prunus Americana, Marshall. Meadow plum.
depressa, Pursh. Sand cherry.
obovata, Beck.
pennsylvanica, Aiton.
Ptelea trifoliata, Linn.
Pteris aquilina, Linn. Common brake.
Pycnanthemum virginicum, Persoon. Virginian thyme.
Pyrola elliptica, Nutt. White wintergreen.
rotundifolia, Linn. Shin-leaf.
secunda, Linn. One-sided shin-leaf.
umbellata, Linn. Prince's pine.
Pyrus coronaria, Linn. Crab apple.
melanocarpa, Ww.

Q.

Quercus alba, Linn. White oak.
bicolor, Ww. Swamp white oak.

Quercus imbricaria, Mx. Shingle oak. Laurel oak.
macrocarpa, Linn. Over-cup oak. Burr oak.
rubra, Linn. Red oak.
Queria canadensis, Linn. Forked chickweed.

R.

Ranunculus abortivus, Linn.
acris, Linn. Crowfoot. Buttercup.
aquatilis, Linn. Water crowfoot.
fascicularis, Muhl.
lacustris, Beck and Tracy. Lake crowfoot.
pennsylvanicus, Linn.
recurvatus, Poiret.
repens, Linn.
sceleratus, Linn. Celery crowfoot.
Rensselaeria virginica, Beck. Water arum.
Rhamnus frangulóideus, Mx. Dwarf alder.
Rhus copallina, Linn. Mountain sumach.
glabra, Linn. Sleek sumach.
radicans, Linn. Poison ivy.
toxicodendron, Linn. Poison ash.
typhina, Linn. Sumach.
venenata, D. C. Poison elder. Poison sumach.
Rhynchospora alba, Vahl.
glomerata, Vahl. False bog rush.
Ribes floridum, L'Heritier. Wild black currant.
gracile, Mx.
triflorum, Ww. Wild gooseberry.
Rochelia lappula, R. and S.
virginiana, R. and S.
Rosa carolina, Linn. Swamp rose.
parviflora, Ehrhart. Wild rose.
Rubus frondosus, Bw. Leafy raspberry.
occidentalis, Linn. Thimbleberry. Black raspberry.
saxatilis, Mx.
trivialis, Mx. Creeping blackberry. Dewberry.
villosus, Aiton. High blackberry.

Rudbeckia hirta, Linn.
laciniata, Linn. Cone-flower.
pinnata, Mx.
purpurea, Linn.
Ruellia strepens, Linn. Ruel.
Rumex acetosellus, Linn. Field sorrel.
acutus, Linn.
brittanicus, Linn.
crispus, Linn. Yellow dock.

S.

Sabbatia angularis, Pursh. American centaury.
Sagittaria sagittifolia, Linn. Arrow-head.
Salix Muhlenbergia, Ww. Speckled willow.
recurvata, Pursh. Shrub willow.
rosmarinifolia, Linn. Rosemary willow.
Sanguinaria canadensis, Linn. Blood-root.
Sambucus canadensis, Linn. Black-berried elder.
pubescens, Persoon. Red-berried elder.
Sanguisorba canadensis, Linn. Burnet saxifrage.
Sanicula marylandica, Linn. Sanicle.
Saponaria officinalis, Linn. Soap wort. Bouncing Bet.
vaccaria, Linn. Field soap wort.
Sarracenia purpurea, Linn. Side-saddle.
Saururus cernuus, Linn. Lizard's tail.
Saxifraga pennsylvanica, Linn. Water saxifrage.
Scheuchzeria palustris, Linn. Less flowering rush.
Schoenus mariscoides, Muhl. Water bog-rush.
Schollera graminea, Barton. Yellow-eyed water-grass.
Scirpus acicularis, Linn.
acutus, Muhl.
americanus, Persoon.
autumnalis, Linn.
brunneus, Muhl.
capillaris, Linn.
capitatus, Linn.
erisphoruo, Mx.

Scirpus equisetoides, Elliott.
lacustris, Linn.
lineatus, Mx.
macrostachyos, Muhl.
palustris, Linn. Marsh club rush.
spadiceus, Linn.
sub-squarrosus, Muhl.
sub-terminalis, Torrey.
tenuis, Ww. Club rush.
Scleria triglomerata, Mx. Whip-grass.
Scrophularia lanceolata, Pursh.
marylandica, Linn. Fig-wort.
Scutellaria ambigua, Nutt.
cordifolia, Muhl.
galericulata, Linn. Scull-cap.
lateriflora, Linn. Mad-dog scull-cap.
Senecio Balsamitae, Muhl. Balsam groundsel.
hieracifolius, Linn. Fire-weed.
vulgaris, Linn. Groundsel.
Setaria glauca, P. de B. Fox-tail. Panic grass.
Sida Abutilon, Linn. Indian mallows.
Silene antirrhina, Linn. Sleepy catch-fly.
stellata, Aiton.
Silphium gummiferum, Elliott. Rosin-plant.
perfoliatum, Linn. Ragged-cup.
terebinthinaceum, Linn. Prairie dock.
Sinapis nigra, Linn. Black mustard.
Sisymbrium officinale, Scopoli. Hedge mustard.
Sisyrinchium anceps, Cavanilles. Blue-eyed-grass.
Sium latifolium, Linn. Water parsnep.
Smilacina bifolia, Des Fontaines. Dwarf Solomon's seal.
racemosa, Des Fontaines. Spiked Solomon's seal.
stellata, Des Fontaines.
Smilax herbacea, Linn. Bohea tea.
peduncularis, Muhl. Jacob's ladder.
rotundifolia, Linn. Horse brier. Green brier.

Solanum nigrum, Linn. Deadly nightshade.
Solidago axillaris, Pursh.
canadensis, Linn. Canadian golden rod.
juncea, Aiton.
flexicaulis, Linn.
lanceolata, Aiton.
nemoralis, Aiton.
rigida, Linn.
serotina, Aiton. Smooth golden rod.
Sonchus oleraceus v. aspera, Linn. Sow thistle.
Sparganium americanum, Nutt. Lake burr reed.
ramosum, Smith. Burr reed.
Spartina cynosuroides, Ww. Spiked salt-grass.
Spergula arvensis, Linn.
Spiraea lobata, Jacquin.
opulifolia, Linn. Nine bark. Hard hack. Snow ball.
salicifolia, Linn. Willow hard hack.
tomentosa, Linn. Steeple-bush.
Spiranthes cernua, Richard. Nodding ladies' tresses.
gracilis, Beck.
Spiranthes tortilis, Richard.
Stachys aspera, Mx. Hedge-nettle.
hyssopifolia, Mx.
Staphylea trifolia, Linn.
Stellaria longifolia, Muhl.
media, Smith. Chickweed.
Stipa avenacea, Linn. Feather-grass.
juncea, Pursh.
Streptopus roseus, Mx. Rose bell-wort.

T.

Tephrosia virginica, Persoon. Goat's rue.
Teucrium canadense, Linn. Wood sage.
Thalictrum cornuti, Hooker.
dioicum, Linn. Meadow rue.
Thaspium barbinode, Nutt.
Thesium umbellatum, Muhl. False toad flax.

Thuya occidentalis, Linn. White cedar. Arbor vitæ.
Tiarella cordifolia, Linn. Mitre-wort.
Tilia glabra, Ventenant. Basswood. Limetree.
Tofieldia glutinosa, Mx.
Tradescantia virginica, Linn. Spider-wort.
Trichodium laxiflorum, Mx.
scabrum, Muhl.
Tricuspis sesleroides, Torrey. Red-top.
Trientalis Americana, Pursh. Chick wintergreen.
Trifolium pratense, Linn. Red clover.
repens, Linn. White clover.
Triglochin maritima, Linn. Arrow-grass.
polustre, Linn. Marsh arrow grass.
Trillium erectum, Linn. False wake-robin.
erythrocarpum, Mx. Smiling wake-robin.
grandiflorum, Salisbury.
Triosteum perfoliatum, Linn. Fever root. Wild coffee.
Triphora pendula, Nutt. Three bird orchis.
Trisetum purpurascens, Torrey.
Typha latifolia, Linn. Cat tail. Reed mace.

U.

Ulmus fulva, Mx. Slippery elm. Red elm.
Urtica canadensis, Linn. Canada Nettle. Albany hemp.
capitata, Linn.
dioica, Linn. Common nettle.
pumila, Linn. Stingless nettle.
Utricularia fornicata? LeConte.
gibba, Gronovius.
macrorhiza, LeConte. Bladder-wort.
purpurea, Walter.
Uvularia grandiflora, Smith.
sessilifolia, Linn.

V.

Vaccinium pennsylvanicum, LaMarck. Whortleberry.
resinosum, Aiton. Black whortleberry.

Verbascum blattaria, Linn. Moth mullein.
thapsus, Linn. Mullein.
Verbena caroliniana? Pigmy vervain.
hastata, Linn. Vervain.
urticifolia, Linn. Nettle-leaf vervain.
Vernonia nove-boracensis, Ww. Flat-top.
Veronica anagallis, Linn. Brook pimpernel.
arvensis, Linn. Wall speedwell.
beccabunga, Linn.
scutellata, Linn. Scull-cap speedwell.
Viburnum acerifolium, Linn. Arrow-wood.
oxycoccus, Pursh. High cranberry.
pubescens, Pursh.
Vicia americana, Muhl.
caroliniana, Walter.
cracca, Linn. Tufted vetch.
Vitis aestivalis, Mx. Summer grape.
riparia, Mx. Odoriferous grape.
Viola blanda, Ww. Smooth violet.
canadensis, Linn.
cucullata, Aiton. Blue violet.
Muhlenbergiana, Genging. Slender violet.
ovata, Nutt.
pedata, Linn.
pubescens, Aiton. Yellow violet.
rostrata, Muhl. Beaked violet.

X.

Xanthium strumarium, Linn. Clot-burr.
Xanthoxylum fraxineum, Ww. Prickly ash.
Xylosteum ciilatum, Pursh. Twin-berry.
Xyris caroliniana, Walter. Yellow-eyed grass.

Z.

Zizania aquatica, Lambert. Wild rice. Wild Oats.
Zizia aurea, Koch. Meadow parsnep.
cordata, Koch. Alexanders.
integerima, D. C.

ABBREVIATIONS OF AUTHORS' NAMES.

Bw	Bigelow.
D. C.	DeCandolle.
Lind.	Lindley.
Linn.	Linnæus.
Mx.	Michaux.
Muhl.	Muhlenberg.
Nutt.	Nuttall.
P. de B.	Palisot de Beauvois.
R. & S.	Roemer & Schultes.
Ww.	Willdenow.

METEOROLOGICAL OBSERVATIONS—1855.

BY L. WOODRUFF, ANN ARBOR, MICHIGAN.

	Mean Temperature.			Monthly Mean.	Maximum.	Minimum.	Clear days.	Part clear.	Cloudy days.	Rain.	Snow.	Thunder.	Amount of Rain and Melted Snow.
	7 A. M.	2 P. M.	9 P. M.										
January,	22.0	30	25.4	25.8	60	1	5	4	22	4	16	----	3.80
February,	11	22	15	16.7	38	24	5	7	16	3	12	----	2.300
March,	24.1	35.5	29.8	30	54	3	9	3	19	6	14	----	2.360
April,	42.3	59.7	50.5	50.5	85	14	20	2	8	14	3	10	5.910
May,	57.6	69 1	57.1	59.3	85	32	20	2	9	12	1	5	0.963
June,	58	70	61	63 2	91	40	12	1	17	21	----	13	7.089
July,	65	78.8	69.1	70.9	91	52	14	4	13	18	----	16	8.740
August,	61.7	73	65.8	68.9	87	48	17	2	12	9	----	11	1.504
September,	59 2	70 8	62.3	63.1	87	40	7	4	19	18	----	8	5.265
October,	39.7	53.3	44.1	46	71	27	16	2	12	13	2	4	2 166
November,	35.1	44.9	38.2	40.1	64	22	11	2	17	12	3	1	5.398
December,	22.4	30.7	24.5	25.9	54	3	9	3	19	4	10	----	3.948
Annual means and totals.	41.5	53.1	45.1	46.7			140	36	183	134	61	68	49.028

The average annual precipitation at Ann Arbor, is about 30 inches.

WINDS.

	W.	N.	E.	S.	S. W.	N. W.	N. E.	S. E.	
January,	3	1	2	2	11	3	2	7	Frost, April 7th,
February,	5	4	4	1	6	5	0	0	21st, 27th, and 28th
March,	5	1	2	0	13	6	2	2	May 5th, 6th, 10th,
April,	1	3	0	4	9	6	0	7	17th, 25th, 26th &
May,	2	6	0	2	4	0	14	3	27th. Last snow in
June,	3	3	3	4	6	9	1	1	spring, May 7th.
July,	4	1	1	5	8	2	8	2	
August,	2	1	1	5	4	3	5	7	
September,	1	3	4	5	8	1	4	4	First killing frost
October,	2	5	0	5	6	11	0	2	in fall, Oct. 13th.
November,	2	1	1	2	8	4	2	8	First snow of the
December	8	1	2	2	10	1	4	3	season, Oct. 6th.
Totals,	33	30	20	38	93	54	42	46	

January.—The first few days of the month were quite warm for the season, the temperature on several days rising to 60 deg. There was a

strong gale from the south on the 6th, and until the 22d the weather was generally mild, though very changeable. On the 22d a heavy snow-storm set in from the north-east, and more or less snow fell every day during the remainder of the month. There was also a decided reduction of temperature. Previous to January 22d there had been just a month of mild, thawing weather. About twenty inches of snow fell during the last ten days of the month.

February.—For steady severity of weather, this month has rarely been equalled in this portion of our State. The mean temperature of the first ten days, taken at 7 A. M. was only $2\frac{1}{4}$ degrees. The last eight or ten days of the month were also very severe. The minimum temperature of the month was observed at $6\frac{1}{2}$ A. M. of the 24th, when the thermometer indicated 25 deg. below zero. The month was stormy, there being 12 days of snow and one of rain. The snow was deeper throughout the month, than has been known for some years in this section. About two-thirds of the winter being very cold, the mean temperature of the season fell about 2 deg. below that of 1854—the latter being 24.8 deg., and the former 22.6 deg.

March.—About two-thirds of the snow thawed off on the 5th, and the weather of the first two weeks was generally mild, though quite variable. On the 19th, however, there was a decided change, and the weather for nine or ten days thereafter, was marked by violent winds and extreme cold. At the close of the month snow yet remained in many places, and vegetation showed little signs of life. A heavy storm of rain occurred on the 13th.

April.—Previous to the 12th the weather was quite dry. The amount of rain not being appreciable. After this date, however, the rains were excessive and almost constant, accompanied by a high temperature. A very severe storm occurred on the night of the 18th, when 2.52 inches of water reached the ground, causing a destructive freshet. About 5 inches of rain fell during three consecutive days. There was much severe thunder and lightning, and on the evening of the 18th, hail the size of musket balls, fell in considerable quantities.

May.—There were no heavy rains here this month, and the moisture afforded was barely sufficient for vegetation. There was also an unusual prevalence of north and north-east winds, accompanied by much cool and unpleasant weather. About 3 inches of snow fell on the 7th, the

temperature being slightly above freezing. Violent storms occurred at intervals in different parts of the country, and on the 15th a destructive tornado passed a little north of this place. Vegetation, which had attained a very fair growth during the warm, moist weather of April, made but little progress, and the spring proved unusually backward.

June.—Until the 15th, the weather was quite cool and changeable, with very light rains. A heavy thunderstorm occurred on the 16th, however, and copious rains on nearly all the succeeding days of the month. The precipitation was very large for this vicinity, and although the weather remained cool for the season until near the close of the month, vegetation was immediately refreshed, and put on a most promising appearance. There was hail of considerable size, though not abundant, on several days, and all the storms were accompanied by a great amount of thunder and lightning. Over 6 inches of rain fell during the last half of the month, and the entire amount was about twice the average for June.

July.—The total amount of rain was nearly treble the normal mean of precipitation for this month. The rains were very copious, and during the last 15 days of the month, almost incessant. During a very powerful thunderstorm on the 29th, over two inches of water fell in a single hour, and half of this quantity fell during the first fifteen minutes of the shower. Throughout this, as well as the preceding month, the appearance of the sky and the formation and movement of the clouds, indicated the presence in the atmosphere, of very powerful disturbing forces. Thunderstorms were very frequent and severe. The excessive and unusual precipitation extended throughout Southern Michigan, and for a considerable distance east and west. The injury done to the wheat harvest by the almost constant rains, was in many localities immense, and the season will long be remembered by farmers as being in this respect the most disastrous ever known.

August.—The weather of this month was generally cool, and the rains, with the exception of some showers in the early part of the month, quite insignificant.

September.—Rain was frequent and copious throughout the month. The weather was also quite warm, the mean temperature falling only a trifle below that of August. A heavy rain, accompanied by a strong

gale from the north-east, occurred on the 18th. There were also heavy rains near the close of the month.

October.—The monthly mean of temperature was 13 deg. below that of October, 1854, and the weather was generally cold for the season, as well as very changeable. Some snow, the first of the season, fell on the 6th, and about the 24th, the weather was unusually cold and stormy, with strong northerly winds. High winds prevailed on eight days; on the evening of the 27th, a very strong gale from the south-west. The thunderstorms of the 29th and 31st were very severe in this vicinity.

November.—The weather of this month was warm and wet, the temperature of the first fifteen days especially, being considerably above the normal mean. The total amount of precipitation was nearly twice the average for November. The last two weeks of the month were very changeable, the barometer oscillating every few days, accompanied by violent winds. A heavy storm occurred on the 11th and 12th, when nearly three inches of water reached the ground. There were a few light snowsqualls during the month, and lightning and thunder on the 15th.

December.—Until the 23d the weather was generally mild, and remarkably pleasant for the season. About 4 inches of snow fell on the 22d, and the weather of the succeeding days, was, without interruption, severely cold. It is worthy of remark that the date at which this change took place, was identical with that on which a change of an opposite character occurred, in December, 1854, at which time a period of mild weather again set in. With the exception of some severe storms, the first two weeks of December, 1855, were unusually pleasant and mild throughout the country. The storm of the 8th and 9th was severely felt over a large portion of the country. The rain here amounted to about 1.50 inches.

TABLE showing in inches and decimals of an inch, the rain-fall at the City of Detroit, from the year **1840** *to* **1855** *inclusive, taken from the meteorological register kept by the Rev. George Duffield, D. D.*

MONTHS.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.
January,	0,960	1,998	1,478	3,037	2,963	1,760	2,810	6,752	4,580	3,952	3,293	4,110	1,879	0,877	3,155	4,535
February,	2,780	0,159	3,162	3,379	1,440	1,156	1,365	2,605	2,280	1,080	2,443	5,674	2,527	2,494	1,744	1,550
March,	1,610	3,140	5,303	2,882	5,340	4,859	2,741	0,447	2,335	4,080	6,462	1,771	4,565	3,181	3,530	4,009
April,	6,980	3,505	4,566	3,159	3,592	4,851	1,134	3,145	1,540	3,644	1,242	4,631	4,831	5,934	5,408	7,388
May,	2,212	4,838	0,647	2,722	8,259	1,725	6,233	3,610	5,860	4,611	0,598	7,256	1,197	7,977	3,262	2,856
June,	3,567	1,295	4,768	4,873	7,942	2,467	7,850	3,420	2,528	5,738	4,368	3,756	5,866	2,567	3,070	11,657
July,	6,113	2,464	11,149	3,499	6,192	2,823	4,787	5,819	10,980	3,815	4,445	6,240	4,932	2,233	5,019	15,010
August,	1,521	2,316	1,186	2,312	4,752	2,332	5,597	1,484	7,360	7,193	6,087	3,971	2,409	3,597	1,383	1,962
September,	4,138	5,712	3,211	3,462	1,058	6,074	7,317	2,377	7,718	0,278	3,585	4,774	6,034	2,587	8,748	5,498
October,	3,664	0,614	2,242	2,622	2,234	3,445	4,570	6,947	4,216	3,765	1,493	2,791	3,935	2,571	7,089	4,391
November,	3,528	3,870	3,335	3,308	1,848	1,455	4,390	4,780	3,597	2,036	3,080	3,826	2,719	4,393	3,672	9,313
December,	2,183	4,014	2,939	3,159	1,704	0,492	3,377	1,495	6,600	1,285	3,635	3,301	6,826	1,461	2,599	3,720
Totals,	39,256	33,925	43,989	38,414	47,324	33,439	52,171	42,881	59,594	41,507	40,731	52,201	47,720	39,872	48,679	71,889

REPORTS

OF

COUNTY AGRICULTURAL SOCIETIES,

FOR THE YEAR 1855.

ALLEGAN COUNTY.

ALLEGAN, Nov. 2, 1855.

J. C. HOLMES, ESQ., *Sec'y Mich. State Agricultural Society:*

DEAR SIR—Our County Fair was held on the 17th and 18th days of October. I send you enclosed, a printed report of what was done, from which you will be able to gather such facts as will give you an idea of our progress.

Very truly yours, &c.

E. B. BASSETT,

Cor. Sec'y Allegan Co. Agricultural Society.

LIST OF PREMIUMS.

HORSES.

The show of horses was very fine indeed, especially of stock horses and colts. There were several pairs of carriage horses and several single horses which would be an ornament to any State Fair. The committee consisted of Messrs. Benj. Pratt, Harvey Kenyon and J. N. Sherwood—and they awarded premiums as follows:

Best 6 year old stock horse,.....Levi Loomis.
Best 4 " " .....Wm. Tyler.
2d 4 " " .....Henry Ashley.
Best 3 " " .....Duncan.
2d 3 " " .....Wm. Tyler.
Best pair carriage horses,.....Willard Higgins.
2d " " .....W. C. Edsall.
3d " " .....John Billings.

Best matched horses,.....Thomas Stratton.
2d " .....Mrs. Currey.
3d " .....W. C. Rowe.
Best matched 4 year old colts,.....Fred. Day.
Best pair horses for all work,.....Geo. Y. Warner.
2d " " .....Sylsbre Rummery.
3d " " .....Daniel D. Davis.
Best buggy horse,.....David D. Davis.
2d " .....Samuel Carter.
3d " .....Nicholas Ashley.
Best 3 year old colt,.....Wm. Allen.
2d 3 " .....Hiram Sabin.
Best 2 " .....A. S. Weeks.
2d 2 " .....Joseph Tanner.
3d 2 " .....A. Schorna.
Best yearling colt,.....John B. Allen.
2d " .....Lauren Sage.
3d " .....H. K. Mills.
Best brood mare,.....J. N. Sherwood.
2d " .....H. K. Mills.
3d " .....James Hawks.
Best sucking colt,.....James Hawks.
2d " .....H. K. Mills.
3d " .....J. N. Sherwood.

CATTLE.

The show of cattle was unusually large, and we noticed more blooded animals, and a manifest tendency to the improvement of the breeds of stock. Wetmore's red cattle looked fine, and the white stock lately imported from Livingston county, New York, by Mr. Dale, of Trowbridge, was highly spoken of. We saw several fair pairs of working oxen. The committee, consisting of Messrs. Abel Angel, William Still and John Clifford, Jr., awarded the following premiums:

Best working oxen,.....John Clifford, Jr.
2d " .....Levi Loomis.
Best pair 5 year old oxen,.....Wm. Pullen.
" 4 " .....Wm. Briggs.

2d best pair 4 year old oxen,.....Nath. Seeley.
Best pair 3 year old steers,.....John S. Day.
2d 3 " .....Wm. Porter.
3d 3 " .....Lauren Sage.
Best pair 2 " .....Jona. Peabody.
Best pair yearlings,.....Richard Cook.
Best bull 5 years old,.....S. Rockwell.
" 3 " .....Benj. Colburn.
" 2 " .....Moses Fansler.
Best yearling bull,.....Q. H. Gorton.
2d " .....L. S. Prouty.
3d " .....Q. H. Gorton.
4th " .....A. J. Murphy.
Best bull calf, (Devon,).....C. C. White.
2d " " .....Fred. Day.
3d " " .....Chester Wetmore.
Best bull calf, (Durham) .....Alex. Dale.
Best cow, (Devon,).....Chester Wetmore.
" (Durham,).....Alex. Dale.
2d best cow, " ..... do
3d " " .....S. H. Thomas.
Best cow, (Native,).....Alex. Dale.
2d " " .....S. H. Thomas.
3d " " .....Benj. Colburn.
Best 3 year old heifer,.....Alex. Dale.
2d 3 " .....Chester Wetmore.
3d 3 " ..... do
Best 2 " (Hereford,).....Alex. Dale.
Best heifer calf, (Durham,)..... do

We are advised by the executive committee that it will not be invidious nor out of place, to remark just here that Leander S. Prouty had upon the ground a superb pair of two year old blooded steers, which were clearly entitled to the first notice of the committee, but which were passed by in the award, for the reason that they had rubbed off their labels. They were really a fine pair—"as near alike as two peas"—bright red—long, large and gentle looking fellows. He could well afford to lose the premium. We are told that they took the first pre-

mium at the Kalamazoo County Fair when yearlings, and were brought on the fair ground by their owner, Judge Earl, of Cooper.

SHEEP AND WOOL.

In this department the show was very small, but the committee represented the animals exhibited as entirely creditable. Calvin C. White, from the committee, reported the following premiums:

Best grade buck,.....H. K. Mills.
Best Leicester buck,.....L. W. Watkins.
Best buck lamb,.....H. K. Mills.

SWINE AND POULTRY.

Here, too, the show was too small, but what were shown were nice. It was the uniform opinion that not enough attention is paid to the introduction of better breeds of hogs—reference being had to their fattening properties. If 20 bushels of corn will make 200 lbs. of pork on a Suffolk pig, and only 100 on another, why not know it, and act upon the suggestion. The chickens on show, were said by those versed in Shanghai science, to be tip-top specimens. Oka Town, from the committee, furnished the report:

Best boar,.....L. S. Prouty.
Best sow and pigs,..... "
2d best " ..... "
Best sow,.....John Murphy.
Best coop chickens,.....Nath. Seely.

GRAIN.

The awards of the committee were:

Best specimens of wheat,.....Levi Loomis.
2d best " .....Alfred Muma.
Best specimens of flour,.....Henry Dumont.
Best specimens of corn,.....L. S. Prouty.

VEGETABLES AND FRUIT.

Here the show was abundant—without end—a perfect and satisfactory feast to look at. There can be no mistaking or questioning the fact that western Michigan is the place in all this world for fruit—apples, peaches, quinces, &c., &c. Such fruit and vegetables we never

saw in any country—so large—so fair—so temptingly luscious. The committee awarded premiums as follows:

Best variety of apples,.....Daniel Wing.
2d best " .....Henry Dumont.
3d best " .....A. S. Weeks.
Best variety of pears,.....H. Munger.
Best variety of quinces,.....S. P. Stanley.
Best lot of fruit trees,.....H. Munger.
2d best " .....L. Merchant.
Best lot of beets,.....H. Hutchins.
" onions,.....Richard Cook.
" potatoes,.....John Clifford, Jr.
" carrots,.....Richard Cook.
" squashes,.....J. S. Conrad.
2d best lot of " .....Thomas Stratton.
Best lot of watermelons,.....Oramel Fisk.

We will take occasion to remark here, that a very considerable amount of excellent fruit, &c., was on exhibition, that was not regularly entered for premiums. Wm. A. Bliss showed some mammoth specimens of mangel wurtzel, and time would fail us to tell the whole. Mr. Stanley, of the "Genesee Nursery," had on the ground a splendid lot of fruit trees—large and thrifty stocks—which, through some inadvertence either of the committee or the agent in charge of them, were not noticed in the awards of the committee.

BUTTER, CHEESE, &C.

Ralph R. Mann and Alby Rossman were the committee in this department. It would have done you good to see their jack-knives go into the tempting rolls, and see their eyes twinkle and their lips smack. We learned one thing—that the yellowest, best looking butter, is not always the best. The show of butter was fair. The little cheeses would have felt slightly diffident, no doubt, in the presence of their northern Ohio kinsfolks—but then they'll grow to it. Of sugar and honey, the samples were nice but few. Premiums as follows:

Best specimen of cheese,.....B. W. Colburn.
2d best " .....W. H. Brown.
Best specimen of butter,.....B. W. Colburn.
2d best " .....R. B. Fenner.

Best specimen of maple sugar,.....Wells Field.
Best specimen of honey,.....William Pullen.

HOUSEHOLD PRODUCTS.

Of the show in this line we will not undertake to speak. Mr. James Monteith and Mrs. E. P. Stuart, from the committee, furnish the award of premiums:

Best quilted skirt,.....Mrs. H. H. Booth.
Best bed-quilt,.....E. Sherwood.
2d best " .....Miss A. Smith.
Best table cloth,.....Miss Sarah Fansler.
Best specimens of millinery,.....Mrs. C. White.
Worked collar and handkerchief,.....Mrs. G. Y. Warner.
Embroidered child's spencer,.....Mrs. W. B. Williams.
Worked collar,.....Mrs. H. H. Booth.
" .....Mrs. E. Granger.
Embroidered skirt,.....Mrs. David D. Davis.
Best crochet work,.....Miss S. J. Emerson.
2d best " .....Mrs. H. H. Booth.
1 toilet cushion,.....Miss Mary Follet.
1 "What-Not" or ornamental corner stand,.....Mrs. David D. Davis.

AGRICULTURAL IMPLEMENTS.

The show was small—too small. The model Fan Mill exhibited was admired by every farmer that examined its working, and was really a very ingenious and money-saving piece of machinery. We are glad to learn that a factory is just being established in this town. Rummery's plow, though an uncouth looking customer, was pronounced No. 1 by everybody who saw it work. The committee only awarded two premiums:

Best fanning mill,.....Mr. Messenger.
Best plow,.....Silsbre Rummery.

LEATHER AND ITS PRODUCTS.

The committee reported the articles exhibited in this department as being second rate articles only. Next year the leather men will be out —depend on it—for the honor of the craft. The premiums awarded were:

Best specimens of boots,.....Thos. C. Jenner.
Best double (heavy) harness,.....John Kirby.

PLOWING MATCH.

There was no regular "match," but Rummery showed the committee a specimen of good plowing, and received a premium at their hands. We want to live long enough to see a 40 acre lot full of teams and men—we want to live over again the intense excitement of our boy days at sight of a full grown plowing match. Somebody will see it in Allegan county, if we don't.

MATTERS AND THINGS IN GENERAL.

All praise is due to the executive committee for the time and labor they have spent to forward the interests of the Society, and make the Fair go off as it should. A set of men never worked harder, or more successfully. See what has been accomplished. The County Society has been organized now three years, in a county of a little over 7000 inhabitants. We now have 16 acres of land nearly paid for, (all but about $25,) we have a new, large, well made tent, which will cover nearly half an acre of ground. We raised this year, by subscriptions and tickets, over $300, and the good ship is now fairly in deep water with fair winds.

We should not forget to mention that a thousand-and-one things were exhibited which contributed not a little to the interest and excitement of the exhibition.

Messrs. Blakeman & Chandler, music dealers, from Kalamazoo and Detroit, were there with some of their instruments, and the singing and playing proved a very attractive feature. We hear the melodeans and pianos manufactured by this establishment spoken of very highly, and several of our nabobs are supplying their parlors with instruments from their shops. We like the men, and make no scruple in recommending them to public favor.

Mrs. Ranney, Miss McMurphy, and the Misses Forbes, contributed materially to the fancy of the show, by exhibiting elegant drawings and paintings. Let everybody bear in mind another year, that every beautiful or useful thing should find a place at the county fair.

The address, by Mr. Stuart, was purely practical, eminently timely

and instructive, and delivered in that calm yet forcible and winning style so peculiar to Mr. Stuart.

At the close of the address, Mr. Littlejohn had a few words for the people, and was listened to as he always is, with attention.

The officers were elected for the year, the premiums announced, and the throng of people were scattered to their homes in every quarter of the county before night. The executive committee met in the evening, and closed up the year's business.

So passed our third county fair. May we live long to see many days so fair and fine, so usefully and happily spent.

The following were the officers elected:

President—H. H. Booth.

Recording Secretary—L. B. Smith.

Corresponding Secretary—E. B. Bassett.

Treasurer—Daniel Emerson.

Executive Committee—Calvin C. White, John Billings, Charles S. Wilson.

BRANCH COUNTY.

SEC'Y'S OFFICE, BRANCH COUNTY AGRICULTURAL SOCIETY.
COLDWATER, 5th May, 1856.

J. C. HOLMES, ESQ., *Sec'y Mich. State Agricultural Society:*

DEAR SIR—Herewith I send you a list of the premiums awarded at the fourth Annual Fair of the Branch County Agricultural Society, held at the Society's grounds in the village of Coldwater, on the 3d, 4th and 5th days of October, 1855. The attendance was full, and the number and quality of animals and articles on exhibition, gave abundant evidence that the citizens of this county take a lively interest in the advancement of agricultural and mechanical interests. The bountiful exhibitions of fruit, the various kinds of grain, the mammoth vegetables, the splendid array of poultry and stock of various kinds, including swine, sheep, cattle and horses, all the best of their kind, show a decided improvement in the agricultural condition of our county.

Our farmers fully appreciate these annual gatherings, and feel that they contribute in no small degree to their success. As an evidence of this, our Society has purchased, and enclosed with a permanent fence, six acres of ground in the village of Coldwater, upon which our fairs are to be held hereafter. The mechanical department was fully and creditably represented. The ladies contributed largely to the interest of the fair, and by their numerous exhibitions, not only of fancy articles and the delicacies of the season, but of the more substantial necessaries of life, proving conclusively, even to the most timid and doubtful, that with such wives, farmers' homes are rendered happy, and success certain.

By reference to the Transactions of the State Society, it will be seen that in stock, for some years past, Branch county has stood second to

none in the State. Yet some valuable accessions have been made, both in horses and cattle, since our last fair, and we expect next fall, to have an exhibition not to be excelled by the richest counties of older States.

I take pleasure in presenting for your consideration, the following sketch of the early history of this county, combining geographical and statistical information, kindly furnished me by C. P. Benton, of this village, who has long been a resident of the county.

The officers elected for the ensuing year, are:

Darwin Willson—President.

Ebenezer Mudge—Vice President.

O. B. Clark—Treasurer.

H. M. Wright—Secretary.

Asahel Brown, P. H. Sprague—Members of the Executive Committee.

Very respectfully yours,

H. M. WRIGHT,

Secretary.

LIST OF PREMIUMS,

Awarded at the Fourth Annual Fair of the Branch County Agricultural Society, held at Coldwater, on the 9th, 10th and 11th days of October, 1855:

CATTLE—SHORT HORNS.

Best bull calf 1 year old, "Haymaker," Crippen & Freeman,	$3 00
2d " " H. J. Curtis,	2 00
Best bull calf, Allen Hurley,	2 00
2d " Crippen & Freeman,	1 00
Best cow 5 years old or over, "Shaker Lady," Crippen & Freeman,	4 00
2d best cow 5 years old or over, "Speck," Crippen & Freeman,	3 00
Best cow 3 years old, "Sarah," "	3 00
2d " Chas. Mason,	2 00
Best heifer 1 year old, "Evening Star," John O. Pelton,	2 00
Best heifer calf, Crippen & Freeman,	2 00

We consider the above a splendid lot of cattle, well worthy the attention and patronage of the farmers of this county.

A. ALLEN,
Chairman.

—

DEVONS.

Best bull	5 years old and over,	D. Wilson,		$5 00
2d	5 "	Chas. Mason,		3 00
Best bull	3 years old,	J. Pridgeon,		2 00
"	1 year old,	C. H. Williams,		3 00
"	calf, "			2 00
Best cow	5 years old or over,	C. H. Williams,		4 00
2d "	5 "	"		3 00
Best "	4 "	John Allen,		4 00
2d "	4 "	C. H. Williams,		3 00
Best "	3 "	John Allen,		3 00
Best heifer	1 year old,	John Allen,		2 00
Best calf,	"			1 00

The committee can but regret that the show of full blood Devon cattle is so small this year, compared with last and previous years. They think Branch county has suffered a great loss in letting the best stock of this class go from it.

D. WILSON,
Chairman.

—

CROSS BETWEEN BLOOD STOCK, OR BETWEEN BLOOD AND NATIVES.

Best bull	3 years old,	Ephraim Shane,		$5 00
2d	3 "	Wm. B. Mason,		3 00
Best bull	2 "	Wm. Van Aiken,		3 00
"	1 "	Thomas Daugherty,		3 00
2d	1 "	D. Wilson,		2 00
Best bull calf,		L. Bowker,		2 00
2d "		Isaac Pierce,		1 00
Best cow	5 years old or over,	J. D. W. Fisk,		4 00

2d best cow 5 years old or over, E. Leland,	$3 00
Best cow 3 " " F. V. Smith.	3 00
2d " " " L. Bowker,	2 00
Best heifer 2 years old, Eb. Butterworth,	3 00
2d " 2 " Geo. Boon,	2 00
Best heifer 1 year old, J. D. W. Fisk,	2 00
2d " 1 " Wm. B. Mason,	1 00
Best " calf, Allen Hurley,	2 00
2d " " Thomas Daugherty,	1 00

S. M. LOOMIS,
Chairman.

—

NATIVE CATTLE.

Best cow 5 years old, Wm. B. Mason,	$4 00
2d " Robert Waggott,	3 00
Best cow 3 years old, A. C. Fisk,	3 00
Best heifer, 2d premium, M. S. Perkins,	2 00
Best yearling heifer, Enoch Foster,	2 00
Best calf, Wm. Nivison,	2 00
2d " J. G. Hogoboon,	1 00

A. McGINNIS,
Chairman.

—

WORKING OXEN, STEERS AND FAT CATTLE.

Best yoke of oxen 5 years old, L. Bowker,	$5 00
2d " " 5 " "	3 00
Best " " 4 " H. C. Gilbert,	5 00
2d " " 4 " E. Leland,	3 00
Best 5 yokes from one town, Coldwater, L. Bowker,	5 00
Best fat ox, A. Hurley,	3 00
2d " Wm. Nivison,	2 00
Best fat cow, A. Hurley,	3 00

WM. LEWIS,
Chairman.

HORSES—STALLIONS FOR SPEED.

Best and fastest trotting stallion 5 years old or over, "Green Mountain Black Hawk," Smith & Crippen, ... $5 00
2d best and fastest trotting stallion 5 years old or over, "Black Hawk Morgan," A. C. Fisk, ... 3 00

C. S. TUCKER,
Chairman.

—

STALLIONS FOR ALL WORK.

Best for all work, 5 years old or over, N. B. Maxfield, ... $5 00
2d " 5 " J. M. Hall, ... 3 00
Best " 3 " J. T. Weatherwax, ... 3 00
2d " 3 " J. Pridgeon, ... 2 00

L. D. CRIPPEN,
Chairman.

—

STALLIONS FOR DRAFT.

Best 5 years old and over, John G. Parkhurst, ... $5 00
Best 3 " James Clizbee, ... 5 00

MATCHED HORSES, MARES OR GELDINGS FOR ROADSTERS.

Best span 5 years old, O. S. Purdy, ... 3 00
2d 5 " Crippen and Freeman, ... 2 00

R. ROOT,
Chairman.

—

MATCHED HORSES, MARES OR GELDINGS, FOR ALL WORK.

Best span 5 years old, H. Warner, ... $3 00
2d 5 " H. Pierce, ... 2 00
Best 3 " B. H. Smith, ... 2 00

Same Committe.

SINGLE HORSES FOR CARRIAGE AND ROADSTERS.

Best 5 years old or over,	F. V. Smith,		$3 00
2d 5 "	H. C. Lewis,		2 00
Best 4 "	Isaac Parsons, Jr.,		3 00
2d 4 "	Jesse Olney,		2 00

Same Committee.

—

BROOD MARES FOR CARRIAGE OR ROADSTER, WITH FOAL AT FOOT.

Best brood mare,	E. M. Crippen,		$3 00
2d "	B. H. Smith,		2 00
3d "	John McCrea,		Transactions.

ASAHEL BROWN,
Chairman.

—

BROOD MARES FOR ALL WORK, WITH FOAL AT FOOT.

Best,	Asahel Brown,		$3 00
2d	E. J. Paddock,		2 00
3d	J. H. Culver,		Transactions.

Same Committee.

—

COLTS THREE YEARS OLD AND UNDER.

Best colt 3 years old,	Jesse Olney,		$3 00
2d 3 "	O. Burdick, Jr.,		2 00
Best colt 2 "	J. Clizbee,		2 00
2d 2 "	A. Williams,		1 00
Best colt 1 "	S. Olney,		2 00
2d 1 "	John Worden,		1 00
Best sucking colt,	F. G. Paddock,		2 00
3d "	J. T. Weatherwax,		1 00

The committee beg leave to say that there were some fine blooded two year old colts on the ground, especially one owned by E. M Crippen, which is well worthy of attention, but the committee were of the

opinion that it ought not to be put in competition for premiums with common stock. Another owned by George Harding, of Indiana, was regarded with much favor, but could not be entered for a premium by rules of the Society.

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SHEEP—FINE WOOLED.

Best buck 2 years old or over,	Ansel Nichols,	$2 00
" 1 year "	H. J. Curtis,	1 00
2d 1 year "	"	1 00
Best 5 ewes 2 years old or over,	A. Nichols,	3 00
2d " 2 "	Wm. Andrews,	2 00
Best 5 ewes 1 "	A. Nichols,	3 00
Best 5 lambs,	A. Nichols,	2 00
Best fat weather,	B. Sherman,	1 00
Best fat ewe,	J. Pridgeon,	1 00

LONG WOOLED.

Best buck 2 years old or over,	J. Pridgeon,	2 00
" 1 year "	"	2 00

There were some fine long wooled bucks on the ground, owned by Mr. P. Haner, but as they were not owned in the county, could not compete for premiums.

WOOL.

There was but one fleece exhibited. It was of very fine quality, and owned by D. Wilson, to whom the first premium, $1, is awarded. We regret that there were no competitors.

D. POWERS,
Chairman.

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SWINE—LARGE BREED.

Best boar,	J. D. W. Fisk,	$3 00
2d "	J. Anderson,	2 00
Best sow,	A. Hurley,	3 00
2d "	Crippen & Freeman,	2 00

SMALL BREED.

Best boar, Suffolk, Crippen & Freeman,	$3 00
2d " W. Andrews,	2 00
Best sow with litter of pigs, Suffolk, Crippen & Freeman,	4 00
2d " " " " T. M. Parrish,	3 00

E. MUDGE,
Chairman.

—

POULTRY—ASIATIC VARIETIES.

Best lot of whites, 1 cock and 2 hens, Crippen & Freeman,	$2 00
2d " " " L. Robinson,	1 00
Best lot of blacks, Crippen & Freeman,	2 00
2d " " John Bowers,	1 00
Best lot of buff, A. G. Barnes,	2 00
2d " " C. D. Brown,	1 00
Best lot of Dorkings, Crippen & Freeman,	2 00
2d " " "	1 00
Best lot of Bantams, L. Robinson,	2 00
2d " " Jay Crippen,	1 00
Best lot of mixed colors, Crippen & Freeman,	2 00
2d " " "	1 00
Best lot of natives, Jay Crippen,	2 00
2d " " A. F. (Tat.) Chandler,	1 00

E. O. LEACH,
Chairman.

—

FARM IMPLEMENTS.

Best two horse carriage, J. H. Marsh & Co.	$2 00
Best single buggy, M. Howe,	2 00
Best field roller, H. Haynes,	1 00
Best grubbing machine, D. D. Whitney,	1 00
One subsoil, one corn, and one Locklin plow, L. B. Titus,	3 00
Best cider mill, L. B. Fisher,	2 00

Best straw and cornstalk cutter, J. P. Parsons,..... $2 00
Best seed sower, L. F. Hale,..... 1 00

There were also presented for exhibition by J. H. Marsh & Co., and S. Taylor, several carriages of their own manufacture, which displayed great taste and skill, and were creditable to them in the highest degree. The stationary cider mill, of John Bowers, of Batavia, in our opinion is the best in the county. A cider mill and cheese press exhibited by Dr. Stillman, are deemed worthy of attention.

D. H. MILLER,
Chairman.

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MECHANICS.

Architectural Drawing of farm house and barn, E. B. Saxton,.. $5 00
One rifle, R. M. Wilder,..... 1 00
One double rifle, Wm. Gage,..... 1 00
Cooking stove, "Northern Farmer," L. B. Titus,..... 1 00
Parlor stove, discretionary premium,..... 1 00
Harness for general purposes, D. Holmes,..... 1 00
Case of boots and shoes, Smith & Pratt,..... 1 00
Half dozen sides of upper leather, H. W. Johnson,..... 1 00
Hlaf dozen calf skins, H. W. Johnson,..... 1 00
Set of copper stove furniture, Hale & Chandler,..... 1 00
Set of tin " " 1 00
Churn, Hale & Chandler,..... 1 00
Milk pans, tin, Hale & Chandler,..... 1 00
Case of tools, Beach & Mockridge,..... 1 00
Narrow axe, best specimen of edge tools, Jesse Burns,..... 1 00
Specimen of silver plating, R. M. Wilder,..... 1 00
Bridge model, D. S. Sillman,..... 1 00
Double carriage harness, Isaac Pierce,..... 1 00

JAS. K. HOWELL,
Chairman.

NEEDLEWORK, EMBROIDERY & MILLINERY.

Pair woolen stockings, by girl 11 years of age, not as good as should be, but the only ones on exhibition, Miss M. J. Mason, ... $1 00
Best pair of lamp mats, Kate C. Fisk, ... 1 00
Best specimen of needlework, J. H. Withington, ... 1 00
Best case of millinery, L. R. Reed, ... 1 00
Best child's embroidered sack, Mrs. J. H. Edwards, ... 1 00
Pair chenille slippers, " 1 00
Watch case, " 1 00
Patch work quilt, Mrs. J. A. Brookins, ... 1 00
Pair wool socks, Mrs. D. J. Goff, ... 1 00
Pair worsted hose, " 1 00
Pair yarn mittens, " 50
Skein woolen yarn, " ..... Discretionary premium.
Specimen of silk embroidery, Mrs. J. G. Parkhurst, ... 1 00
Chair tidy, Mrs. F. J. Pratt, ... Discretionary premium.
10 yards rag carpet, or over, Mrs. E. Leland, ... 1 00
Specimen of linen needlework, Mrs. N. D. Skeels, ... 1 00
Hearth rug, Mrs. Cushman, ... 1 00
Best chair tidy, Mrs. H. D. Miller, ... 1 00
Pair lamp mats, Mrs. D. B. Dennis, ... 1 00

The committee recommend discretionary premiums on all quilts, coverlets and patchwork on exhibition.

H. C. LEWIS,
MRS. G. BULKLEY,
MRS. F. J. WEBB,
Committee.

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BUTTER, CHEESE, &C.

Best specimen of milk rising bread, Mrs. F. J. Pratt, ... $1 00
" " by girl under 12 years of age, Miss Mary Jane Mason, ... 1 00
Best 10 lbs. butter made in May, Mrs. T. D. Ransom, ... 1 00
No statement of putting down, as required by rule.

10 lbs. butter made in May, Mrs. D. D. Whitney,..... $1 00
10 pounds maple sugar, Mrs. F. D. Ransom,..... 1 00
10 pounds honey, Mrs. J. C. Hall,..... 1 00
15 pounds cheese, Mrs. Wm. Tibbits,..... 3 00
Sample of brandy cheese, Mrs. T. J. Bridge,.....Dis. premium.
Best specimen of salt pork, Mrs. D. C. Ransom, (no statement,) 2 00
Best sample of smoked ham, Jno. Garvin,..... 5 00
Best sample of smoked ham cooked, Jno. Garvin, very nice.
Best sample of dried beef, Jno. Garvin,..... 1 00
Bottle currant wine, Henry Pierce,..... 1 00
Bowl crab-apple jelly, Mrs. J. G. Parkhurst,.....Dis. premium.
Bottle grape wine, J. O. Pelton,.....Dis. premium.

STEPHEN DeHART,
GEO. A. COE,
Committee.

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FRUITS, GRAPES, &C.

Best collection of grapes, C. H. Williams,..... $0 50
" pears, Mrs. J. O. Pelton,..... 1 50
" peaches, A. F. (Tat.) Chandler,..... 1 50
" cranberries, Geo. Purdy,.....Dis. premium.
" winter apples, O. Burdick, Jr.,..... 2 00
2d " " D. S. Cornell,..... 1 00
Best collection of fall apples, (this is a fine exhibition of fall and winter apples, but less than 12 varieties of fall apples,) E. Leland,.....Dis. premium.
Best collection of quinces, D. C. Ransom,..... 1 00

The fruits are regarded as a decided improvement upon those of any former year, and promise well for the future.

J. GOODWIN,
Chairman.

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GRAIN AND SEEDS.

Best half bushel winter wheat, J. M. Blazer,..... $2 00

2d best half bushel winter wheat, C. C. Brown, ... $1 00
Best " timothy seed, Geo. Taylor, ... 1 00
Best " white beans, J. H. Vanaiken, ... 1 00
Best " oats, R. D. Decker, ... 1 00
Best 12 ears of dent corn, N. B. Maxfield, ... 1 00
2d " " F. S. Cornell, ... 50
Best 12 ears of flint corn, J. H. Vanaiken, ... 1 00
Best half bushel of field peas, Leach & Way, ... 1 00
Best half bushel of Poland oats, Geo. Harding, very nice, but not entitled to compete.

Specimens of Dutton corn, by J. H. Vanaiken and O. Burdick, Jr., very good, but not entitled to premiums.

A. C. WILLIAMS,
Chairman.

VEGETABLES.

Greatest variety of roots for cattle, Leach & Way, ... $1 00
" " culinary purposes, Leach & Way, .. 1 00
Best 12 blood beets, Wm. Tibbits, ... 50
" 12 carrots, " 50
" 12 parsneps, Leach & Way, ... 50
" peck of onions, " 50
" half bushel table potatoes, T. M. Parrish, ... 50
" " feeding potatoes, Wm. Nivison, ... 50
Greatest variety of potatoes, Leach & Way, ... 1 00
Best peck of sweet potatoes, J. H. Culver, ... 50
" tomatoes, Leach & Way, ... 50
Best 6 head of cabbage " 50
" 12 white turnips, " 50
" 12 ruta bagas, " 50
" 12 vegetable oysters, " 50
" 6 pumpkins, " 50
" 6 winter squashes, " 50
1 watermelon, D. S. Cornell, ... Dis. premium.
3 stems mammoth pie plant, J. G. Hogoboam, ... "

3 watermelons, D. Wilson,.....Dis. premium.

A. ALLEN,
Chairman.

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PLOWING.

First premium with horses, Geo. Boon,.....	$5 00
2d " " R. D. Decker,.....	3 00
First premium with oxen, A. J. Richardson,.....	3 00

JOHN A. McCREA,
Chairman.

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MISCELLANEOUS.

1 bunch shingles, Jno. Newcomb,.....	Dis. premium.
1 cage birds, J. G. Parsons,.....	"
2 landscape paintings, D. P. Benton,.....	"
1 bouquet, Miss Ursula Cook,.....	"
Plan of farm, Jas. Clizbee,.....	"
Specimen of sea shells and coral, Mrs. J. G. Parkhurst,..	"
Chinese umbrella and specimen of cocoanut plants, novelties in this latitude, J. G. Parkhurst,.....	Dis. premium.

Several specimens of the canine family were exhibited, to wit:

Three rat terriers, by Crippen & Freeman; English pointers, full blood, dog, slut, and five pups, by R. M. Wilder; one blood-hound, by A. Hurley. All very fine of their breed, and look *miscellaneous.*

A. McCREA,
Chairman.

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MUSIC.

The committee, together with a large and delighted audience, listened with great pleasure to the "concord of sweet sounds" from *voice,* Melopean and Dulcimer.

The number of competitors was not large, but the efforts of all were

most excellent. We award the first premium to Miss Bennett, for best performance on the Dulcimer.

We also award the first premium for performance on the Melopean, to Mrs. F. E. Marsh, who, in the opinion of the committee, ranks as a first class performer upon that highly esteemed instrument. The instruments were of superior tone and finish, and we recommend premiums if within the province of officers. The Dulcimer was manufactured by Mr. Bennett, of Coldwater.

JNO. CHANDLER,
A. A. AMIDON,
Committee.

FEMALE HORSEMANSHIP.

For best display on horseback, Mrs. D. Marsh, 1st prem.,.....Bridle.
2d " " Miss Louise Noyes, 2d prem.,....Whip.
For best display in driving two horses, Mrs. J. B. Crippen, 1st premium,..... "
For best display in driving one horse, Mrs. H. N. Moore,..... "

The contestants for the premiums offered for display in horsemanship, were barely sufficient to carry off the several prizes. It is hoped that this feature at our next fair will excite more interest, and that the grounds will be enlivened with the presence of the fair *equestriennes* of our county, habited in hat and plume for the day.

S. M. SEELY,
Chairman.

The county of Branch is bounded on the north by Calhoun county, on the east by Hillsdale county, on the south by the State of Indiana, and on the west by St. Joseph county. It comprises townships five, six, seven and eight south, of ranges five, six, seven and eight west. Being sixteen towns, four of which are fractional on the south line of the county. It is 24 miles from east to west, and about 21½ miles from north to south. The names and numbers of the townships are:

Butler,	No. 5	South of	Range	5	West.
Girard,	No. 5	"		6	"
Union,	No. 5	"		7	"
Sherwood,	No. 5	"		8	"
Quincy,	No. 6	"		5	"
Coldwater,	No. 6	"		6	"
Batavia,	No. 6	"		7	"
Matteson,	No. 6	"		8	"
Alganse,	No. 7	"		5	"
Ovid,	No. 7	"		6	"
Bethel,	No. 7	"		7	"
Bronson,	No. 7	"		8	"
California,	No. 8	"		5	"
Kinderhook,	No. 8	"		6	"
Gilead,	No. 8	"		7	"
Noble,	No. 8	"		8	"

This county is situated west of the highest land between lakes Erie and Michigan, with a slight western slope. Its surface is undulating, but not mountainous or very hilly. Some portions of it are quite level.

It is divided into timbered land, oak openings, and prairies interspersed. There are some small and beautiful lakes scattered in various parts of the county. There are also many streams of water. The St. Joseph River enters the county in its northern part, and passes through two towns, viz: Union and Sherwood.

The Coldwater river is formed by two branches, one from the east, and one from the south-west, which unite near the centre of the county, in the town of Coldwater, and, pursuing a northerly direction, unites with the St. Joseph river at Union City. Both of these streams afford excellent water-power, and many mills are erected upon their banks. Some of the smaller streams furnish water sufficient for saw-mills, and are improved for that purpose. There are two belts of timbered land running through the entire length of the county from east to west. One is on the north side of the county, and varies in width from 3 or 4 to 6 or 8 miles. The other is south of the centre of the county, and is also several miles in breadth. The soil of these tracts of timbered land is a deep, rich, sandy loam, except upon the river bottoms, where it has more the appearance of muck. It is excellent for all kinds

of crops cultivated in this latitude, and is especially adapted to the cultivation of grass. The opening and prairie land lies between these belts of timber, and south of them. That portion of land within the county, on the north side of the St. Joseph river, is mostly oak openings. The soil of the openings partakes of some variety. It is sandy or gravelly, with an admixture of loam. It has been proved to be well adapted to the culture of wheat, as well as corn, oats and other products.

We have whitewood, black walnut, cherry, ash, maple, elm, beech and oak timber in abundance.

We have but little clay in this county, but it is found in some localities sufficient for making brick, which are now extensively used in building.

Marl, from which a good quality of lime is made, is also found in sufficient quantities for home consumption.

There is not a great amount of stone, but the supply is abundant for ordinary use in making cellars, and the foundations of buildings.

There are some marshes, though none of any considerable extent but such as are capable of drainage, and in time they will become valuable meadow lands. Iron ore, of the kind denominated bog ore, is found in some places, and there are now two blast furnaces in this county; one of them has recently been erected in the town of Butler. The other is located at Union City, and has been in operation about 10 years, having proved to be a profitable investment. The kidney iron ore is also found to some extent.

Water, for the supply of man and beast, is found in great abundance, in all parts of the county, of a pure and wholesome quality.

Situated in the southern part of the State, and nearly equi-distant from the two great lakes, Erie and Michigan, we have unusually mild weather during the winter months. Snow sometimes falls to the depth of 12 to 18 inches, rarely as much as that. In spring, summer and autumn, the weather is delightful. With a fertile soil, a salubrious climate, an abundant supply of pure water, a great plenty of timber for building purposes, and for fuel, with a sufficient quantity of lime, clay and stone, for the practical uses of life, it is no wonder that this county was sought out for the residence of civilized man, at an early day. The first of the Saxon race who came to this county, emigrated from west-

ern New York as early as the year 1829, and commenced improvements in Coldwater, Bronson and Girard, in each of which places there are beautiful prairies of unrivalled fertility of soil. They found some land under cultivation by the Pottawatamies, who raised Indian corn and potatoes of excellent quality. The country at that early day presented a most beautiful appearance. The oak openings were without underbrush, and the surface of the earth was covered with green verdure, interspersed with beautiful wild flowers of every hue and color; giving a charm to nature that induced the early settlers to seek no farther for a home. In time, other friends gathered around them, the forests were cleared, the axe of the woodsman, the whistle of the plowman, and the song of the milkmaid were heard; houses and barns were built; churches and schoolhouses erected; highways laid out; orchards planted, and fields cultivated, gave promise of well filled granaries. In time, mills were needed, and they too were built.

Merchants and mechanics followed close upon the heels of the agriculturist, and now the busy hum of industry is heard in all parts of our county. Splendid mansions are taking the place of the rude cabins of the first settlers. Flouring and saw mills, moved both by water and steam power, have increased as the wants of the community demanded. Furnaces and machine shops have sprung into existence, and business of all kinds bears the impress of prosperity, abundantly supplying all the wants of the people.

Our farmers, instead of consuming produce raised in Ohio and other States, now have large quantities to sell at remunerating prices. The Chicago road, which runs through this county, was formerly much traveled by stages, travelers' conveyances, as well as the teams and wagons of emigrants; and it still continues to be an important road. But now the traveling portion of the community are mostly conveyed on the Michigan Southern Railroad, which passes through the centre of the county in a latitudinal direction, on which are three stations in this county, to wit: Quincy, Coldwater, and Bronson. Four passenger trains pass each way, daily, besides many freight trains. This road is a great thoroughfare of travel, and one of the connecting links in that great chain of railroads which unites the Eastern States with those west of the Mississippi river, and which, it is hoped, will soon extend to the shores of the Pacific.

The growth of our county has been gradual and steady. The mercantile, mechanical, and manufacturing business, has kept about an even pace with the agricultural interest. Herein are a few extracts from the statistics of our county, to wit:

Years.	No. of Horses.	No. of Sheep.	No. bush. Wheat.	Passengers.
1837,	518	176	27,612	4,181
1840,	714	744	67,317	5,715
1845,	----	----	------	9,070
1850,	1,735	22,441	161,284	12,472
1854,	2,992	27,147	207,964	14,681
1856, estimated at				16,000

and is probably more.

Coldwater is the centre of the county, and contained in 1837, a population of 970, which increased up to 1854 to the number of 3111, and now contains about 4000, or more. It is the seat of justice for the county, is a thriving place for business, and in regard to locality, beauty, neatness and enterprise, is unrivalled by any inland town in the State.

Quincy, Union City, and Bronson, are also pleasant places and growing villages, and their inhabitants are active and enterprising. Our population and business have steadily advanced and increased as rapidly as could have been expected in an interior county, with no navigable waters. It shows conclusively that notwithstanding the excitement in regard to emigration to Texas, Oregon, California, Minnesota and Kansas, we have a county rich in agricultural wealth, sufficiently tempting to induce the resident to remain, and the emigrant to tarry within our borders.

Our citizens are nearly all of the Anglo-Saxon race, and mostly emigrants from New York and Eastern States.

They are enterprising and industrious, temperate and well disposed. This is no part of the world for indolent, lazy or lounging rogues. We have no use for them. They cannot exist here, and do not stay long with us.

A better state of society cannot be found in the same number of square miles, in any part of the Western States. Our citizens do not fall behind those of our sister counties in regard to intelligence and virtue, and in relation to agriculture and the improvement of stock, we claim to be the banner county in the State. We can exhibit as fine an

assortment of horses and cattle of the various breeds as any man ever desired to see.

Our farmers are some of them extensively engaged in raising stock. Of horses we have Morgans, Black Hawks and bloods. Of cattle there are Devons and Durhams. Of sheep, the Merinos, Leicesters and South Downs. Of swine, Suffolk, Essex and Berkshires. Of poultry, a great variety. Others of our agriculturists are engaged in the cultivation of wheat. It is not uncommon to see 80 or 100 acres in a field. Others have turned their attention to the raising of corn, oats, potatoes, &c. Some cultivate the grasses extensively, with a view of supplying the market with hay. Orchards bear fruit in abundance, of apples, pears, plums, cherries, peaches and quinces. Gardens abound in currants, grapes, strawberries, and all of the culinary vegetables.

Truly ours is a land of plenty, literally "flowing with milk and honey," and should call forth from the heart of man, feelings of gratitude to the Great Creator, for his bountiful gifts which meet the eye on every hand.

CALHOUN COUNTY.

J. C. HOLMES ESQ., *Sec'y Mich. State Agricultural Society:*

SIR—The undersigned, on behalf of Calhoun County Agricultural Society, herewith submit their annual report.

The seventh Annual Fair of the Society, was held on the 10th and 11th days of October last, on the grounds of the Society, at Marshall, with results that plainly indicated an increasing interest in the welfare of the Society; a desire to hasten the progress of improvement in all matters pertaining to the agricultural interests of our community—and of further developing the wealth that correct theory, and strict thorough practice have shown to exist unused in the fertile soil of our beautiful county.

We claim that there is a marked change within the limits of our county, and that our society has been active in its mission; in awakening thought; in arousing the feelings; by an exchange of opinions improving the judgment, and by its exhibitions exciting the ambition and increasing the desire to excel, so natural to all! Of and in the farming community around us, who, even if they had, as has been formerly most slanderously charged upon the inhabitants of our beautiful Peninsula, "left all Sabbaths behind, when they crossed Lake Erie," did not fail to bring with them a portion of that spirit of "goaheadativeness," claimed to be all-pervading among those they left behind them.

And science, theoretical, combined in its usefulness with the practical, is rapidly increasing the number of its votaries, who are thus becoming most successful advocates of the truth of the adage, "knowledge is power," by their actual and declared demonstration, as well by the effect of their example, manifest in the greatly increased and superior returns both in quantity and quality, of produce, over the results of indifferent culture of former years.

While naturally concomitant, or closely following, is the marked improvement in the various kinds of stock generally raised, and in the effect of attempts to combine the useful with the beautiful upon and around farms and residences, that seemed divested of utility, by the entire absence of that which tends to beautify and adorn.

It was deemed advisable by the executive committee of the society, to hold an intermediate summer exhibition, as well as the annual one, and it was accordingly done; bnt the result showed it to be of doubtful expediency or benefit. But few articles were presented; the exhibition being attended in general only by those in the immediate vicinity; and also, diminishing the number of articles brought to, and in some degree lessening the interest felt in the annual and more general exhibition.

At our Fair in 1855, the number of articles offered for premiums was 695; in 1854, 577. The increase not being as great as we had hoped for, in consequence of the very wet season, and farmers being busily engaged in putting in wheat, deemed every day of importance at so late a period in the autumn.

The number of visitors, and consequently the amount of receipts, was also much lessened by the inclemency of the weather on the last day of the Fair.

At the close of the exhibition, the Society listened to an eloquent and instructive address, by Professor Welch, of the Normal School, at Ypsilanti.

The report of our Treasurer shows that, less $68 53 on hand at close of former year, the sum of $1,035 73 was received by him during the year, of which $498 was received from the county, and $534 65 paid out by him, of which $432 75 was for cash premiums, leaving a balance in treasury of $501 08.

At the last meeting of the executive committee, $500 was appropriated toward the erection of a large, permanent building, on the grounds of the Society, with the intention of completing the same as soon as possible, without creating any indebtedness on the part of the Society.

Much expense has been incurred in improving our fair ground, which though small in extent, (being about 4 acres,) is very pleasantly located and well adapted to the uses of the Society.

The following were elected officers of the Society for the ensuing year:

President—Jeremiah Brown, of Battle Creek.

Vice Presidents—Chas. Holmes, Albion; Wm. Holmes, Athens; J. Conklin, Bedford; Hiram Cowles, Battle Creek; Theron Hamilton, Burlington; Ezra Bradner, Clarence; A. Hawkins, Convis; M. N. Moulthrop, Clarendon; O. M. Bordwell, Eckford; James Newbro, Emmett; Isaac Van Voorhies, Fredonia; H. B. Hayes, Homer; Henry Long, Lee; Jas. A. Robinson, LeRoy; Wm. R. Schuyler, Marshall; Milo Soule, Marengo; B. Chamberlain, Newton; Henry Parsons, Penfield; J. E. Wild, Sheridan; T. H. Southworth, Tekonsha.

Treasurer—C. P. Dibble, Marshall.

Secretary—I. W. Wilder, Marshall.

The next annual fair of the Society, will be held at Marshall, on the 7th and 8th days of October next.

Very respectfully,

I. W. WILDER,

Secretary.

Z. Tillotson, *President.*

Marshall, January 21, 1856.

CASS COUNTY.

LIST OF PREMIUMS

Awarded Sept. 28, 1855, by the Cass County Agricultural Society:

HORSES.

Draft stallion, Isaac Hull, 1st premium,	$7 00
Stallion for all work, Levi Reams, 1st premium,	7 00
Blooded stallion, Alex. Haskins, "	7 00
" Geo. Rodgers, 2d "	5 00
Three years old stallions, Thos. Peek, Jr., 1st premium,	4 00
" John Nixon, 2d "	3 00
Two years old stallions, Parker Marrs, 1st premium,	3 00
Yearling stallion, J. A. Shingledecker,	1 00
Mares, Wm. Rennison, 1st premium,	5 00
" John Lybrook, 2d "	3 00
Saddle horses, C. W. Jones, 1st "	3 00
" Wm. Adams, 2d "	2 00
Buggy horses, Henry Warren, 1st premium,	3 00
" R. Tefft, 2d "	2 00
Matched horses, S. D. Wright, 1st "	5 00
" Henry Warren, 2d "	3 00
Draft teams, Amos Jones, 1st premium,	4 00
" Wm. Rennison, 2d "	3 00
Colts 3 years old, Calvin Keeler, 1st premium,	2 00
" John Nixon, 2d "	1 00
Colts 2 years old, John McAllister, 1st "	2 00
" Wm. Allen, 2d "	1 00
Yearling colts, Isaac Hull, 1st premium,	2 00

Yearling colts, John Nicholson, 2d premium, ... $1 00
Sucking colts, Geo. W. Jones, 1st " 2 00
" John Shellhammer, 2d " 1 00

The display of horses exceeded former years in numbers and quality.

CATTLE.

Work oxen, Wm. Sears, 1st premium, ... $5 00
" C. B. Tietsort, 2d " 3 00
Steers 2 years old, T. M. N. Tinkler, 1st premium, ... 2 00
" 3 " Harrison Strong, " 3 00
Fat oxen, Justus Gage, ... 4 00
" Charles Jones, ... 3 00
Devon Bull, Reuben Allen, ... 5 00
" cow, " 3 00
" calf, " 1 00
Durham bull, Jas. E. Bonine, 1st premium, ... 5 00
" C. W. Jones, 2d " 3 00
Durham yearling bulls, Samuel Rich, 1st premium, ... 2 00
" " Amos Jones, 2d " 1 00
Durham calves, " H. Thomas, 1st " 1 00
" " Joseph Jones, 2d " 50
Durham cows, John S. Gage, 1st premium, ... 3 00
" D. McIntosh, 2d " 2 00
Durham yearling heifers, J. E. Bonine, 1st premium, ... 2 00
" " D. McIntosh, 2d " 1 00
Durham heifer calves, J. E. Bonine, 1st premium, ... 1 00
" " " 2d " 50

The calves and yearlings showed the care and attention necessary to rear fine animals.

Grade cattle and steers 3 years old, D. McIntosh, ... $3 00
Grade cow, Jesse G. Jones, 1st premium, ... 3 00
" Amos Jones, 2d " 2 00
Grade heifers 2 years old, J. G. Jones, ... 3 00
" yearling " 1 00
Grade bull calves, C. W. Jones, ... 1 00
" J. G. Jones, ... 50

SWINE.

Berkshire boar, S. D. Wright,	$2 00
Shaker sow, J. Bonine, Jr.,	2 00

SHEEP.

Spanish buck, C. W. Jones, 1st premium,	$4 00
" Nathan Jones, 2d "	2 00
French buck, " 1st premium,	4 00
Saxony buck, J. Bonine, Jr., "	4 00
" Wm. Jones, 2d premium,	2 00
French & Spanish buck, J. E. Bonine,	4 00
Spanish ewes, J. Bonine, Jr., 1st premium,	4 00
" J. E. Bonine, 2d "	3 00
Spanish lambs, J. Bonine, Jr., 1st premium,	2 00
" J. E. Bonine, 2d "	1 00
French ewes, Wm. Jones, 1st "	4 00
Saxony lambs, J. Bonine, Jr., 1st "	2 00

AGRICULTURAL IMPLEMENTS AND MANUFACTURED ARTICLES.

Straw cutter, C. A. Hill,	$0 50
Fanning mill, "	1 00
Double-share plow, J. Argabright,	1 00
Tin ware, Isaac Marsh,	Diploma.
Shower bath, "	1 00
Single buggy, U. Walton,	2 00
Double carriage, Jacob Hass,	3 00
" B. Cooper,	2 00
Double harness, J. Hass,	1 00
Horse shoeing, U. C. Squires,	1 00
Double wagon, Jas. Girt,	3 00

DOMESTIC MANUFACTURES.

Coverlet, Mrs. J. P. James,	$1 00
Patch work, Mrs. C. A. Hill,	1 00
Quilt, Mrs. N. Jones,	1 00
Collar, Mrs. M. Wilson,	1 00
Woolen socks, Mrs. W. G. Beckwith,	Diploma.
What-not, Miss M. M. Lee,	2 00

Box and frame, Miss A. Kingsbury, ... $1 00
2 bonnets, Mrs. H. Bloodgood, ... 50
Ottomans, &c., Mrs. C. Kingsbury, ... 1 00
Glass boxes, Mrs. S. Jones, ... Diploma.
Netting, Miss C. Hill, ... 1 00

DAIRY.

Cheese, Mrs. W. G. Beckwith, ... 1 00
" Mrs. J. A. Reynolds, ... 50
Butter, Mrs. J. D. Gifford, ... 1 00
" Mrs. G. B. Turner, ... 50

FRUITS AND VEGETABLES.

Apples, Wm. H. Doane, 17 varieties, ... $1 00
" Chas. Kingsbury, 23 " 50
Turnips, W. H. Doane, ... Diploma.
Pumpkins, " ..... "
Potatoes, B. Mead, ... 50
Quinces, A. P. Backus, ... 50
Pears, J. Hull, ... 50

POULTRY.

Bremen geese, J. E. Bonine, ... $1 00
Ducks, J. P. James, ... 50
Shanghais, L. Osborne, ... 1 00
Turkeys, J. E. Bonine, ... 1 00
Brama Pootras, L. Osborne, ... 1 00
" M. Vale, ... Diploma.

FARMS.

Best farm, J. E. Bonine, ... $10 00
2d " D. M. Howell, ... 6 00

D. BLACKMAN,
Secretary.

EATON COUNTY.

To J. C. Holmes, *Sec'y Mich. State Agricultural Society:*

Sir—It becomes a duty involving upon me, to make a report of the organization and prosperity of our Society, for 1855.

I take great pleasure in saying that our Society is in a prosperous condition, although until our annual fair there was very little interest exhibited by the farming community; but that put new energy in the breast of every individual, so that our Society is now free from debt, with an amount of $324 56 on hand, with which to commence the operation of another year. Our great prosperity is owing mainly, no doubt, to the interest taken in the institution by the farmers and mechanics, at and since the fair.

We see no reason why our prosperity may not only continue, but constantly increase, in proportion to the wealth and prosperity of the county. Owing to the surplus means in the treasury, its influence is felt in the agricultural and manufacturing interests of the county, far beyond the most sanguine expectations of the few friends who struggled to obtain an organization.

I am sir,

Very respectfully,

Your ob't serv't,

L. H. ION,

Recording Sec'y Eaton Co. Ag. Society.

ORGANIZATION OF THE EATON COUNTY AGRICULTURAL SOCIETY.

Pursuant to notice, there was a meeting convened in the Court House in the village of Charlotte, January 3d, A. D. 1855, for the purpose of organizing a County Agricultural Society.

On motion,

Willard Davis, of Vermontville, was appointed Chairman, and L. H. Ion, Secretary.

On motion of T. D. Green,

Resolved, That we now form ourselves into a Society to be called the Eaton County Agricultural Society.

On motion,

The following gentlemen were duly elected officers of the Society:

Harvey Williams, Treasurer.

J. H. Corbin, Secretary.

On motion of J. C. Spencer,

A Corresponding Secretary for each town in the county was appointed, as follows:

Bellevue, Reuben Fitzgerald.

Walton, Fitz J. Reed.

Brookfield, Jesse Hart.

Eaton Rapids, H. A. Shaw.

Eaton, J. P. Hall.

Carmel, E. A. Foote.

Kalamo, Y. T. Stebbins.

Vermontville, D. Griswold.

Chester, R. M. Wheaton.

Benton, B. Landers.

Windsor, A. T. Cunningham.

Delta, E. S. Ingleson.

Oneida, Reuben Wood.

Roxand, G. S. Allen.

Sunfield, G. W. Andrews.

On motion,

The terms of membership were fixed at one dollar admission fee.

On motion,

The Secretary is requested to notify the Corresponding Secretaries of their appointment, with a request that they circulate subscriptions for members, collect the entrance fee, and pay the same over to the Treasurer at the next meeting.

On motion,

A committee of three, consisting of Harvey Williams, J. C. Spencer, and L. H. Ion, were appointed to draft a Constitution for the Society.

On motion,

Meeting adjourned until the second Monday in February next, at the Court House in Charlotte.

WILLARD DAVIS,
Chairman.

L. H. Ion,
Secretary.

At an adjourned meeting of the Eaton County Agricultural Society, convened agreeably to notice, at the Court House in Charlotte, this 12th day of February, A. D. 1855:

Willard Davis being called to the Chair, and L. H. Ion officiating as Secretary *pro. tem.*

The proceedings of the last meeting being called for, were read by the Secretary.

The report of the committee appointed to draft a Constitution, was then called for; whereupon the committee reported the following Constitution, requesting that the same be adopted, and committee discharged.

CONSTITUTION,

Of the Eaton County Agricultural Society, adopted February 12th, A. D. 1855.

ARTICLE I.—NAME AND OBJECT.

Section 1. The name of this association shall be the Eaton County Agricultural Society; and its object shall be to promote the improvement of agriculture and its kindred arts, throughout the county, and shall be auxiliary to the Michigan State Agricultural Society.

ARTICLE II.—OFFICERS, THEIR ELECTION AND DUTIES.

Section 1. The officers of this Society shall be a President, one Vice President in each organized township in the county, a Recording Secretary, a Treasurer, a Corresponding Secretary in each organized township in the county, and an Executive Committee, consisting of the President, Vice Presidents, and Recording Secretary, and also the Ex-

Presidents of the Society. These officers shall be elected by ballot or otherwise, by a majority of the votes, at the annual meeting of the Society, and shall hold their offices for one year, and until others are chosen in their places; *Provided*, That the officers named upon the organization of the Society shall be deemed members, and shall remain officers only until others shall be duly elected at the first annual meeting; and if a vacancy happen, it may be filled by appointment of the Executive Committee. No person shall be elected to office in this Society unless they are members.

SEC. 2. The duties of the President, Vice President, Recording and Corresponding Secretaries, shall be such as usually pertain to their respective offices, and such also, as may be prescribed by the special order of the Executive Committee, as hereinafter provided.

SEC. 3. The President shall deliver or cause to be delivered, an address before the Society, on agriculture, or kindred sciences, at each Annual Fair.

SEC. 4. The Recording Secretary shall keep a full account of all the proceedings of the Society, and the Executive Committee; and make a report thereof at the Annual Meeting, and cause the same to be published in at least one newspaper in the county, for which, and all other services, he shall receive such fair compensation as the Executive Committee may determine.

SEC. 5. The Treasurer shall receive and keep an accurate account of all moneys belonging to the Society; he shall pay out its moneys only on the order of the Executive Committee; and at each annual meeting of the Society, he shall make a full report of its financial transactions and conditions.

SEC. 6. The Treasurer shall give bonds with good and sufficient security, in double the amount received from all sources the previous year, and shall pay all premiums not exceeding the amount in his hands, and disburse all funds on the order of the Executive Committee, and make a full report at the Annual Meeting.

SEC. 7. The first Treasurer elect shall give bonds in the penal sum of one thousand dollars, payable to the Executive Committee of the Eaton County Agricultural Society.

SEC. 8. The Treasurer shall, upon the election of his successor in

office, pay over all moneys remaining in his hands, belonging to the Society.

SEC. 9. The Executive Committee shall determine the place of holding each Annual Meeting and Fair of the Society, and it shall call that Meeting and Fair at such time as it shall judge best, between the second Monday in September, and the fourth Monday of October, giving at least sixty days public notice thereof.

SEC. 10. The Executive Committee shall direct the money appropriations of the Society, and have the control of its property; it shall make the necessary preparations for the Annual Fair, and issue all proper public notices and circulars in relation thereto; as to the general object of the Society, it shall prepare the necessary By-laws of the Society, and may prescribe such duties to the other officers of the Society, as are not inconsistent with the usual business of the respective officers; it shall itself obey the instructions which may be given to it at the Annual Meeting of the Society, and at the expiration of its term of service it shall make a full report of its proceedings. It shall be competent for the Executive Committee, or a majority of them, to appoint a Chairman and Secretary, who may transact all such business as they may be authorized to do by said Committee; and said Secretary shall sign, and said Chairman shall countersign all orders on the Treasurer for the payment of any money directed by said Committee, to be paid for any purpose, and said Secretary shall keep an accurate account of all orders so drawn.

ARTICLE III.—PREMIUMS.

SECTION 1. Productions of the soil presented for premiums, must be raised in the county, but agricultural implements manufactured out of the county, shall be entitled to premiums: *Provided, however*, That such implements manufactured in the county, shall not be thereby excluded from premiums if worthy, but shall be entitled to an equal premium.

SEC. 2. The Executive Committee shall meet within four weeks after the Annual Fair, to award premiums, at which time all premiums shall be awarded, except upon field crops, which may be deferred until the next Annual Meeting. Premiums to be paid as soon as the awards are declared and certificates issued.

SEC. 2. No persons, but such as are members of the Society, shall be allowed to compete for premiums, except ladies, for domestic manufactures, floral and horticultural productions.

SEC. 3. The reasons for awarding premiums shall accompany all reports.

SEC. 4. Any person who shall attempt to impose upon the Society, by offering any animal or article for competition at any Fair, in violation of any of its rules, shall not be entitled to any premium at such Fair.

ARTICLE IV.—MEMBERSHIP.

SECTION 1. Any person may become a member by paying one dollar into the Treasury.

ARTICLE V.—AMENDMENT OF CONSTITUTION.

SECTION 1. This Constitution may be amended at any Annual Meeting, by a vote of two-thirds of the members present.

On motion of Wells R. Martin,

The report of the committee was accepted and committee discharged.

On motion of J. W. Hickok,

The Constitution was then adopted.

On motion,

The meeting then proceeded to elect their officers for the ensuing year.

Whereupon, a motion was then made by M. S. Brackett, that all present at this meeting shall have the privilege of voting to elect public officers:

Which motion was adopted.

The report of the Corresponding Secretaries from each town was then called for, whereupon J. P. Hall, of Eaton, Reuben Fitzgerald, of Bellevue, and D. Griswold, of Vermontville, were found present and reported favorable.

On motion of T. D. Green,

Resolved, To elect viva voce.

Which motion was sustained, and the following officers duly elected:

W. U. Benedict, of Vermontville, President.

VICE PRESIDENTS.

Reuben Fitzgerald, Bellevue.
Adam Scott, Walton.
Jesse Hart, Brookfield.
James Gallery, Eaton Rapids.
Henry Perkey, Eaton.
A. P. Case, Carmel.
T. D. Green, Kalamo.
Willard Davis, Vermontville.
Eri A. Green, Chester.
David Verplank, Benton.
George P. Carman, Windsor.
E. S. Ingersoll, Delta.
George Nichols, Oneida.
Henry A. Moyer, Roxand.
John Dow, Sunfield.

On motion,

L. H. Ion was duly elected Recording Secretary, and Harvey Williams, Treasurer.

A motion was then made to elect one Corresponding Secretary for each organized township, which motion was adopted by electing the following named persons, viz:

E. M. Kingsbury, Bellevue.
Fitz L. Reed, Walton.
E. R. Sherman, Brookfield.
G. Y. Cowen, Eaton Rapids.
J. H. Corbin, Eaton.
J. M. Haslett, Carmel.
Joseph Gridley, Kalamo.
D. P. Griswold, Vermontville.
Robt. Wheaton, Chester.
B. Landers, Benton.
A. T. Cunningham, Windsor.
S. E. Millett, Delta.
Smith Johnson, Oneida.
G. S. Allen, Roxand.
G. W. Andrews, Sunfield.

On motion,

Resolved, That the President is hereby requested to call a meeting of the executive committee within three months from this time, for the purpose of making by-laws and transacting any business that may come before them.

On motion of T. D. Green,

A quorum of ten at any regular meeting of the executive committee shall be sufficient to transact business:

Which motion was sustained.

On motion of J. C. Spencer,

The Recording Secretary is hereby authorized to procure books appropriate for himself and Treasurer, at the expense of the Society.

Resolved, That the Recording Secretary shall have the proceedings of this meeting published in the Eaton Republican and Michigan Farmer.

On motion,

The meeting adjourned *sine die*.

WILLARD DAVIS,
Chairman.

L. H. Ion,
Recording Secretary.

—

EXECUTIVE COMMITTEE.

At a special meeting of the executive committee of the Eaton County Agricultural Society, holden at the Court House in said county this 13th day of May, A. D. 1855, agreeable to notice, the following business was transacted, viz:

The meeting being called to order by W. U. Benedict, President of the Society, the names of the executive committee being called by the Secretary, the following members were present:

W. U. Benedict, Vermontville.
Jesse Hart, Brookfield.
James Gallery, Eaton Rapids.
Henry Perkey, Eaton.
A. P. Case, Carmel.
T. D. Green, Kalamo.
Willard Davis, Vermontville.

Eri A. Green, Chester.

David Verplank, Benton.

L. H. Ion, Eaton.

A quorum being present, the meeting proceeded to business by electing W. U. Benedict, Chairman, and L. H. Ion, Secretary of said committee.

On motion of James Gallery,

Resolved, That a committee of three be appointed by the Chair to draft by-laws.

Whereupon, L. H. Ion, James Gallery, and Harvey Williams, were duly appointed.

BY-LAWS.

Adopted June 30th, 1850.

ART. 1. The Executive Committee shall prescribe the rules and regulations to be observed at all Fairs and exhibitions, and the place of holding the same, and shall annually appoint a Marshal, by the first day of August, whose duty it shall be to cause suitable pens or enclosures to be produced for the reception of stock offered for premiums. He shall take charge of such pens, &c., and assign each animal and product its proper place on days of exhibition; he shall keep a list of such animals and products, with such information in relation to each as may be communicated to him by the Recording Secretary, for the inspection of the viewing committees; he may appoint all necessary assistants, with the same duties, subject to himself.

ART. 2. No animals or other product shall be entitled to a premium, but such as actually belong to and are *bona fide* the property of members whose subscriptions have been paid up to that time, and such as they have had possession of, and been by them kept within the county for three months next preceding the exhibition.

ART. 3. Applicants for premiums, shall give to the Recording Secretary, ten days previous to each Fair, written notice relative to the article to be exhibited.

ART. 4. Each viewing committee shall consist of three persons, appointed by the Executive Committee.

ART. 5. It shall be the duty of the Exective Committee, at a suitable period preceding each Fair, to select such viewing committee, and

the Recording Secretary shall notify each individual of his appointment, and obtain and report his answer thereto. Vacancies may be supplied by the Executive Committee, on or preceding the day of the Fair.

Art. 6. No member of any viewing committee shall, prior to their awards, ask or receive from any person information touching animals or products exhibited, except from the Marshal or his assistants; nor shall the Marshal or his assistants, prior to such awards, communicate to the committees in any case, the names of the owners of such animal or products.

Art. 7. The viewing committees shall be attended to the pens by the Marshal or one of his assistants, and any owner of stock or products, who shall communicate or cause to be communicated his ownership, or in any way attempt to influence the decision of the committees, shall forfeit all claim to a premium. Any member of the Society who shall be guilty in like manner, even though not interested in the decision of the committees, shall be expelled from the Society. Any Member who shall refuse to obey the Marshal, when he, the said Marshal, is acting within the sphere of his duty, or shall resist him in the execution of his duties, shall be expelled from the Society.

Art. 8. All reports of viewing committees, shall be made in writing, and signed by the members of the committees assenting thereto, and premiums shall be conferred on the award of the majority of any such committee. All awards of money shall be accompanied by a certificate signed by the President and Recording Secretary.

Art. 9. It shall be the duty of the viewing committee on different kinds of live stock, to give the preference to animals possessing the greatest combination of those points or properties which constitute the most profitable animals, regard not being had to color, nor exclusively to size and condition.

Art. 10. No premium shall be awarded without a competition, unless the viewing committee shall deem the animal or product exhibited highly meritorious; nor shall premiums be given in cases where there is competition, unless the viewing committee shall consider the animals or products worthy of the same.

Art. 11. No animal or other product presented for competition, shall be entitled to receive more than one premium annually.

Art. 12. It shall be the duty of the viewing committees to deposit

with the Secretary their awards, and the same shall be preserved in the archives of the Society.

ART. 13. The Executive Committee shall audit the accounts of the Treasurer and Recording Secretary, and if found correct shall certify to the same, prior to its submission to the Annual Meeting of the Society.

ART. 14. No person shall be entitled to vote either at the Annual Meeting or meetings of the Executive Committee, unless he be a member of the Society.

ART. 15. Premiums may be offered and awarded for such foreign stock and articles as the Executive Committee shall designate, but such premiums shall be distinct from the premiums awarded for articles and stock owned in the county; and stock and articles owned in the county shall have the right to compete with all such premiums.

ART. 16. These by-laws may be altered or amended at any meeting of the Executive Committee, by a majority of the members there present, voting so to do.

ART. 17. No article or animal offered for exhibition, can be taken from the ground before the close of the Fair, without the permission of the Executive Committee, and any violation of this rule will forfeit all claim to a premium on the article so removed.

ART. 18. All persons competing for premiums on field crops, must furnish a written statement of the amounts of their products, with full particulars of the mode of cultivation, and the judges shall require of them satisfactory evidence of the correctness of such statement.

ART. 19. A quorum of five at any of the meetings of the Executive Committee, shall be sufficient to transact any business which may come before said committee.

L. H. ION,
JAMES GALLERY,
HARVEY WILLIAMS,
Committee.

Resolved, That the Recording Secretary is hereby requested to procure, as soon as practicable, one thousand cards or certificates of membership, to be distributed to the Corresponding Secretaries and other officers in each organized township, with instructions to procure as many members as possible, and report to the Corresponding Secretary the

amount of funds received and the prospect of the amount to be received, on the third Monday in June next.

On motion of James Gallery,

Resolved, That a committee of three be appointed to draft a schedule of articles entitled to premiums at the next annual fair, to be holden on the 11th and 12th days of October, A. D. 1855.

Whereupon, W. U. Benedict, D. P. Griswold, and Willard Davis, were duly appointed said committee, with directions to report at the next meeting.

On motion,

The meeting adjourned until the 18th day of June next.

W. U. BENEDICT,

President.

L. H. Ion,

Secretary.

At an adjourned meeting of the executive committee of the Eaton County Agricultural Society, convened at the Court House, this 18th day of June, A. D. 1855.

The meeting having been called to order by W. U. Benedict, President, proceeded then to transact the following business:

The proceedings of the last meeting being called for, were read by the Secretary.

On motion,

The report of the committee to draft by-laws was then read, the report accepted and committee discharged.

The report of the committee appointed to draw up a list of articles upon which the Eaton County Agricultural Society at their ensuing fair will award premiums, was then presented, accepted, adopted, and committee discharged.

On motion,

A committee of three, consisting of the President, Recording Secretary, and Joseph M. Haslett, was appointed to award the amount of premiums and to publish the same.

On motion,

A committee of three, consisting of J. P. Hall, H. H. Hatch and Lewis Noble, was appointed to ascertain if ground can be procured in

the village of Charlotte, for the purpose of holding the annual fair of the Society for the year 1855, and the probable expense attending the fitting up and fencing of the same, and how much the citizens of Charlotte are willing to subscribe towards defraying the above expenses, and report to this meeting on the last Saturday in this month.

The meeting then adjourned until Saturday, the 30th day of June inst., at 10 o'clock A. M.

SATURDAY, JUNE 30, 1855; 10 A. M.

Committee met pursuant to adjournment, and meeting was called to order by Wells R. Martin, of Vermontville, who was elected to the chair, *pro tem.*

The committee appointed to select the ground for holding the first agricultural fair, report through their chairman, J. P. Hall, that they have selected the ground, and that the citizens of Charlotte will defray all the expense of fitting up the same for the use of the fair.

The report was accepted, adopted, and the committee discharged.

On motion of Willard Davis, of Vermontville,

The first annual fair of this Society shall be held at Charlotte, on Thursday and Friday, the 11th and 12th days of October next.

On motion,

J. P. Hall, of Eaton, was appointed Marshal, and directed to prepare the fair grounds, enclose the same with a suitable fence, and erect the necessary pens, sheds, &c., for the accommodation of animals, and safe keeping of articles presented for exhibition.

After selecting the viewing committees, it was

Resolved, That the Secretary have 500 copies of the constitution and by-laws printed for distribution; likewise procure proper certificates and handbills for the fair.

On motion,

Resolved, That the President, Secretary and Treasurer, adopt proper rules and regulations to govern the Judges and Marshal in fulfilling the duties devolving upon them; also, to fill any vacancies that may occur in any of the Judges.

On motion, the meeting adjourned *sine die*.

W. U. BENEDICT,
Chairman.

L. H. ION,
Secretary.

EATON COUNTY FAIR.

The first Annual Fair of the Eaton County Agricultural Society, was held at Charlotte, October the 11th and 12th, A. D. 1855.

First Day—The weather, though not so pleasant as could be wished, was a decided improvement on what we had for several weeks previous, and was much better than was feared.

A chilly north-wester prevailed most of the day, which made standing out somewhat uncomfortable; yet many other county and several State Fairs have this fall been held during drenching rains.

Considering the muddy roads, and above all, the sickness, which, this season, has thrown a damper on everything but doctoring, the attendance was large; distant parts of the county were well represented. The solid men of the agricultural class were on the sod, with their ladies and live stock. In cattle and horses Eaton county shows up well; much better than any one dared to expect. There were some of the finest looking horses on the ground that we have ever seen, and from the admiration expressed by the crowds that constantly surrounded them, we felt satisfied that we were not alone in our ideas of the model horse.

The vegetable kingdom this year sent its royal families of squashes, pumpkins, potatoes and onions. One squash weighed 90 and another 98 lbs., measuring nearly 6 feet in circumference, and all their brethren of the garden and field were in proportionate keeping. There were apples that tried hard to represent the old fashioned size of pumpkins, one measuring 17 inches in circumference, weighing $1\frac{3}{4}$ lbs.—and peaches that took the place of what used to be called large apples.

In the departments of domestic manufactures and fancy articles, the specimens showed that the ladies of the county are with the Society, heart and hand, and that artistic taste and skill reigns in our woodlands. There were drawings and paintings, and splendid fabrications from the humblest materials, with silk, worsted and cambric embroideries, bed quilts wrought into flower gardens—many of those articles, products of the skill and industry of girls very young—that show a wealth of female accomplishments, and native genius, that all must have felt proud of.

Second Day.—On this day the attendance was very large, and though the air was rather cool, the sky was clear. The plowing match,

to the disappointment of many, did not take place, in consequence of there being but one entry, and no competition.

Many seemed confident that if they had brought their teams along, they might have stood a chance, and when they saw the failure were sorry they did not.

Fine horses were all the rage; even a large portion of the ladies seemed to take more interest in watching the movements of the noble animals around the ring, than in anything else.

This being our first Fair, there was much inexperience on the part of nearly all; and that after this first lesson, we see where we could make improvements in many respects.

The judges did not all understand the manner in which they should have made out their reports; there were many errors in giving the numbers of classes, and in designating the first and second premiums; this made an immense amount of vexatious work for the Recording Secretary. The judges in some of the departments, were not aware of the discretionary powers conferred on them; there were many articles richly deserving of premiums, which were not noticed, because judges supposed themselves confined to articles mentioned in the bills.

There were articles which did not come under the inspection of any of the judges, for the reason that no one knew in what department they belonged; but everything will be managed better next time.

We have heard from a number of county Fairs held in the counties around us, and we are well satisfied that ours compares very favorably with any first Annual Fair, and even with some held by old Societies.

The admission fee of ten cents at the door of the exhibition building, was not required from members of the Society or from their families, yet the receipts, $54 00, showed the attendance of 540 visitors, besides the members. There are now 325 members of the Society.

Taking everything into account, we think the Society has every reason to feel encouraged, and satisfied with its progress.

The county has good reason to feel proud of the interest and success in agriculture, as evinced by the late exhibition.

A bond of acquaintance, sympathy and friendship, has commenced forming between the different towns and communities of the county; each farmer has learned his own merits and demerits, his chances for improvement, and with what he must hereafter compete.

An address was this day delivered by W. U. Benedict, President of the Society; after which the awards of the judges were proclaimed by the Secretary.

The whole number of articles entered for competition, was two hundred and eleven.

LIST OF PREMIUMS,

Awarded at the First Annual Fair of the Eaton County Agricultural Society, held at Charlotte, on the 11th and 12th days of October, 1855:

CATTLE—BLOOD AND NATIVES.

J. Kirkendall, Eaton Rapids, 2 year old bull, 1st premium,	$5 00
J. D. Skinner, Windsor, " " 2d "	2 50
J. E. Clark, Eaton Rapids, 1 cow, 1st premium,	2 00
John Morse, Carmel, 2d "	1 00
J. E. Clark, Eaton Rapids, 1 yearling heifer, 1st premium,	1 00
Willard Davis, Vermontville, " 2d "	50
H. Ford, Eaton Rapids, 2 calves, 1st premium,	1 00
W. Dickenson, Vermontville, twin calves, 2d premium,	50

CEPHAS SMITH,
R. W. GRISWOLD,
JOHN FLORA,
Judges.

DEVONS.

H. Prindle, Chester, 6 year old bull, 1st premium,	$5 00
D. Beeby, Eaton Rapids, " 2d "	2 50
E. S. Garey, " 4 year old cow, 1st "	2 00
" " bull calf, 1st "	1 00

EDWIN R. MARTIN,
WAIT J. SQUIRE,
GORDON B. GRIFFIN,
Judges.

DURHAMS.

P. Case, Carmel, 5 year old bull, 1st premium, ... $5 00
Willard Davis, Vermontville, 3 year old bull, 2d premium, ... 2 50
J. L. Mygrant, Carmel, 1 " 1st " 2 00
R. Fitzgerald, Bellevue, 1 " 2d " 1 00
P. Case, Carmel, best cow, 1st pemium, ... 2 00
" " " 2d " 1 00
" " 1 heifer, 1st " 1 00
R. Fitzgerald, Bellevue, one heifer, 2d premium, ... 50
R. W. Griswold, Vermontville, calf, 1st " 1 00
P. Case, Carmel, " 2d " 50

A. D. SHAW,
H. HADLEY,
SOL. C. PERRINE,
Judges.

—

WORKING CATTLE.

W. H. Chapman, Walton, 4 year old oxen, 1st premium, ... $4 00
A. C. Ells, Carmel, 3 year old steers, 1st premium, ... 2 00
N. Corlue, Kalamo, 4 year old steers, " 4 00
R. Soules, Benton, 3 year old steers, 2d premium, ... 1 00
A. H. Munson, Carmel, 3 year old steers, 2d " 1 00

ALANSON MEACH,
Judge.

—

FAT CATTLE.

O. A. Morse, Eaton, best fat cow, ... $1 00

J. M. TAGGETT,
LUMAN MEACH,
Judges.

—

HORSES.

D. M. Griswold, Vermontville, best 4 year old stallion, ... $5 00

Ion & Shepherd, Eaton, 2d best 4 year old stallion,	$2 50
D. M. Griswold, Vermontville, best 2 year old stallion,	2 00
P. S. Spaulding, Kalamo, 2d best 2 year old stallion,	1 00
E. S. Garey, Eaton Rapids, best 1 year old stallion,	2 00
J. Gridley, Kalamo, 2d best 1 year old stallion,	1 00
W. U. Benedict, Vermontville, best sucking colt,	1 00
Amos Kinney, Eaton, 2d best sucking colt,	50

PETER DOW,
E. D. LACEY,
Judges.

—

H. Hammond, Eaton Rapids, best brood mare,	$4 00
P. S. Spaulding, Kalamo, 2d "	2 00
U. S. Fairfield, Vermontville, best 3 year old colt,	2 00
A. French, Roxand, 2d best 3 year old colt,	1 00
P. Britton, Eaton, best 2 year old colt,	2 00
J. Gridley, Kalamo, 2d best 2 year old colt,	1 00
W. U. Benedict, Vermontville, best sucking colt,	1 00
G. S. Browning, " 2d best "	50

H. A. SHAW,
JOHN W. McCARGER,
T. T. STEBBINS,
Judges.

—

C. C. Chatfield, Eaton Rapids, best span matched horses,	$5 00
H. Hadley, Vermontville, 2d " "	2 50
J. Cranson, Carmel, best single horse,	2 00
H. H. Hickok, Bellevue, 2d best single horse,	1 00
O. F. Taylor, Eaton Rapids, best matched 2 year old colts,	2 00

ROB'T WHEATON,
JAS. W. HICKOK,
AMADON ALDRICH,
Judges.

SHEEP.

E. S. Garey, Eaton Rapids, best buck, ... $3 00
A. P. Case, Carmel, 2d best buck, ... 1 50

HENRY A. SHAW,
A. B. SAMPSON,
Judges.

—

A. P. Case, Carmel, best store sheep, ... $2 00
E. S. Garey, Eaton Rapids, 2d best store sheep, ... 1 00

JOHN D. SKINNER,
ISAAC TURNER,
Judges.

—

HOGS.

S. Fordham, Brookfield, best boar, ... $1 00

JOSEPH GRIDLEY,
E. E. McINTYRE,
Judges.

—

POULTRY.

D. Kirby, Eaton Rapids, best pair geese, ... $1 00
A. Laverty, Carmel, best pair dorkings, ... 1 00
A. L. Green, Olivet, best pair brama pootras, ... 1 00
A. Laverty, Carmel, 2d best " 50
R. Fitzgerald, Bellevue, best pair bantams, ... 1 00
P. Britton, Eaton, 2d best " 50
H. A. Shaw, Eaton Rapids, best Cochin China rooster, ... 1 00
" " best Shanghai hen, ... 1 00
A. Scott, Eaton, 2d best " 50
J. Belger, Eaton, best pair ducks, ... 1 00

JOHN C. SPENCER,
A. H. PROCTOR,
Judges.

FARMING AND HOUSEHOLD IMPLEMENTS.

J. Gallery, Eaton Rapids, best plow, 1st premium,..... $1 00
A. Campbell, Eaton, " 1st " 1 00
Samuel Clark, Bellvue, ½ doz. rakes, 1st " 1 00
A. P. Case, Carmel, best churn, 1st " 1 00
Wm. Armstrong, Eaton Rapids, churn, 2d premium,..... 50
D. W. Perrine, " fanning mill, 1st " 1 00

GEO. S. ALLEN,
HIRAM SHEPHERD.
J. PATTERSON,
Judges.

—

HARDWARE.

J. H. Humphrey, Eaton Rapids, best staple and ring, 1st prem., $1 00
Geo. Trusler, Carmel, best set of horse shoes, 1st premium,... 1 00
J. H. Humphrey, Eaton Rapids, " 2d " ... 50
E. Haydon, Eaton, spade and shovel, 1st premium,..... 1 00
" " cooking stove, 1st " 2 00
" " hot air stove, 2d " 1 00
" " parlor stove, 2d " 50

—

WAGONS AND HARNESS.

E. A. Green, Chester, best double carriage,..... $2 00
J. Hart, Brookfield, 2d " 1 00
W. S. Squire, Vermontville, best single carriage,..... 1 00
Ion & Shepherd, Eaton, best double sleigh,..... 1 00
D. B. Griswold, Vermontville, best sulky,..... 1 00
W. J. Squire " best single harness,..... 1 00
R. P. Abbey, Eaton Rapids, 2d " 50
D. B. Griswold, Vermontville, best bridle,..... 1 00

D. B. GRISWOLD,
J. H. DORLAND,
Judges.

GRAINS.

Spicer & Tompkins, Eaton Rapids, best bbl. flour, ... $2 00
A. L. Green, Olivet, 2d " 1 00
J. D. Bradley, Walton, best bushel of oats, ... 1 00
G. M. Porter, Benton, 2d " 50
H. Perkey, Eaton, best bushel of wheat, ... 1 00
J. Newell, Carmel, 2d " 50
W. H. Hartman, Carmel, best bushel potatoes, ... 1 00
J. J. Allen, " 2d " 50
Ira D. Bradley, Walton, best bushel of corn, ... 1 00
J. Newell, Carmel, best bushel of barley, ... 1 00

H. H. HATCH,
JAMES SOUTHWORTH,
JAMES W. HICKOK,
Judges.

—

GARDEN VEGETABLES.

R. Fitzgerald, Bellevue, best squash, ... $0 50
J. J. Allen, Carmel, best pumpkin, ... 50
" " best ½ bush. onions, ... 1 00
N. F. Rice, Roxand, best garden peas, ... 50
J. Bosworth, Walton, " bushel of turnips, ... 50
J. Gridley, Kalamo, best ½ bush. ruta bagas, ... 50
Wm. Parmenter, Eaton, best blood beets, ... 50
T. L. Curtis, Carmel, best variety of garden vegetables, ... 1 00
H. H. Hatch, " 2d " " 50

AMOS KINNE,
G. A. WADE.
Judges.

—

FRUIT.

J. Luscomb, Bellevue, best half dozen apples, ... $1 00
J. Kirkendall, E. Rapids, 2d " 50
E. A. Green, Chester, best half dozen varieties, ... 1 00

W. U. Benedict, Vermontville, 2d best half dozen varieties,... $0 50
S. Ferries, Eaton Rapids, best and greatest varieties,..... 2 00
H. H. Hatch, Carmel, 2d " 1 00
C. Reads, Olivet, best half dozen quinces, ... 50
E. N. Bartlett, Olivet, best half dozen peaches,..... 50
L. H. Ion, Eaton, largest apple, weight 1 ¾ lbs., dimensions 17 inches,..... 50

J. M. HASLETT,
M. S. BRACKETT,
JOHN MORRIS,
Judges.

—

BOOTS AND SHOES.

J. R. Hyde, Eaton Rapids, best pair fine calf boots,..... $ 1 00

C. C. CUMMINS,
J. M. MARTIN,
Judges.

—

DOMESTIC MANUFACTURES.

John Morse, Carmel, best woolen carpet,..... $1 00
H. H. Gale, Eaton, best 10 yards carpeting,..... 1 00
W. H. Cornel, Carmel, best piece of carpet,..... 1 00
Eliza Cranson, Eaton, best pair woolen stockings,..... 50
Mrs. K. W. Griswold, Vermontville, best pair of socks,..... 50
Mrs. A. L. Baker, Eaton, best bed spread,..... 1 00
Mrs. Winch, Carmel, best coverlet,..... 1 00
Mrs. R. B. Hughs, Bellevue, best quilt,..... 1 00
O. A. Morse, Eaton, best bedspread,..... 1 00
H. Baughman, Carmel, best quilt,..... 1 00
Miss M. L. Potter, Benton, best knit child's shoes,..... 1 00
Mrs. R. W. Griswold, Vermontville, best stocking yarn,..... 50
P. Kauffman, Carmel, best suit of clothes,..... 2 00

MRS. HAYTE,
MRS. ARNOLD,
MRS. J. P. HALL,
Judges.

FANCY ARTICLES.

Mrs. Browning, Vermontville, best silk embroidery,	$0 50
Miss Ward, Bellevue, best collar,	50
H. J. Griswold, Vermontville, best embroidered undersleeves,	50
Miss L. A. Brayman, Carmel, best cambric collar,	50
Mrs. W. Davis, Vermontville, best embroidered handkerchief,	50
Mrs. H. A. Shaw, Eaton Rapids, best fancy card basket,	50
Miss E. Stoddard and Mrs. Stowell, Carmel, best raised worsted work,	50
Mrs. Proctor, Vermontville, best ottomans,	1 00
J. Hopkins, " best pencil drawing,	1 00
Miss J. Barber, " 2d "	50
Miss M. Williams, Carmel, best monochromatic drawing,	1 00
W. K. Martin, Vermontville, 2d "	50
O. Waller, Benton, best theorine painting,	1 00
Miss E. Chatfield, Eaton Rapids, 2 vases paper flowers,	50
Mrs. L. Ion, Eaton, best knit ladies' cape,	50
Mrs. Martin, Vermontville, best glove box,	50
Miss Wand, Bellevue, best embroidered handkerchief,	50
Mrs. Hayte, " " lamp mat, worsted,	50
Mrs. Wm. Parmenter, Eaton, best embroidered skirt,	50
Mrs. A. H. Proctor, Vermontville, embroidery,	50

MRS. W. DAVIS,
MISS E. STODDARD,
MR. E. FOOTE,
Judges.

—

CULINARY ARTICLES.

N. F. Rice, Roxand, best sage cheese,	$1 00
O. A. Morse, Eaton, best common cheese,	1 00
N. F. Rice, Roxand, best jar of butter,	50
W. U. Benedict, Vermontville, best jar pickled peaches,	50
Miss E. Stoddard, Carmel, best cup currant jelly,	50
P. S. Spaulding, Kalamo, best 3 loaves of bread,	50
H. H. Gale, Eaton, best 5 lbs. maple sugar,	50

R. Fitzgerald, Bellevue, best box of honey,..... $0 50

MRS. N. C. MERRITT,
MRS. H. H. HATCH,
MRS. JEROD BOUTON,
Judges.

—

FLORAL AND HORTICULTURAL.

Willard Davis, Vermontville, 1 herbarium,..... $1 00
H. A. Shaw, Eaton Rapids, 1 fig tree,..... 1 00
" " 1 lemon tree, ... 1 00
W. R. Martin, Vermontville, 1 bouquet of flowers,..... 1 00
Mrs. J. T. Hayte, Bellevue, " " 1 00

MRS. W. U. BENEDICT,
MRS. M. S. BRACKETT,
MISS AMANDA ROBINSON,
Judges.

—

DAGUERREAN LIKENESSES.

A. H. Proctor, Vermontville, best Daguerrean likeness,..... $1 00

E. A. FOOTE,
Judge.

—

FARMS.

R. Fitzgerald, Bellevue, best cultivated farm,..... $5 00

E. M. KINGSBURY,
D. B. GRISWOLD,
Judges.

—

MISCELLANEOUS ARTICLES.

E. N. Laverty, Carmel, one centre table, leather work,..... $1 00
W. R. Martin, Vermontville, picture frame, " 1 00

Mrs. H. A. Proctor, Vermontville, picture frame, leather work,. $1 00
A. W. Perrin, Eaton Rapids, 2 boxes, " 1 00
S. C. Perrin, " 1 box, " 1 00

MRS. PROCTOR,
H. H. GALE,
JOHN MORRIS,
Judges.

—

FIELD CROPS.

J. Newell, Carmel, best acre of oats,..... $2 00
" " best half acre of potatoes,..... 1 00
G. S. Allen, best acre of barley,..... 1 00
J. Newell, Carmel, 2d best acre of barley,..... 50
H. A. Moyer, Roxand, best acre of corn,..... 3 00
Amos S. Braman, Carmel, 2d best acre of corn,..... 1 50
S. Herring, Kalamo, best half acre of turnips,..... 1 00

W. U. BENEDICT,
President.

L. H. Ion,
Recording Secretary.

ADDRESS

Delivered before the Agricultural Society of Eaton county, at the First Annual Fair, held October 11th and 12th, A. D. 1855, by the Rev. W. U. Benedict, President of the Society:

Ladies and Gentlemen—This is one of the proudest days ever witnessed by Eaton county, and if pride may lawfully have a place in the human heart, we may well be proud of the first exhibitions of these productions of earth, and of the skill of man; these beasts and birds, these grains, vegetables, fruits and flowers; these agricultural and mechanical instruments, these eatables of all colors, tastes, names and descriptions; these paintings and drawings, and this varied needle work,

these all utter one voice. They speak of the copious showers of Heaven, of the warming sunbeams, and of the industry, planning care, skill and perseverance of man, woman, maiden and little one. The mental and physical energies of the inhabitants of this county, as well as those of other counties, have most manifestly conspired with propitious heaven in producing this manifest abundance which our eyes have this day witnessed, so rich, so grand, so tasteful, and so beautiful.

As a county, and as an Agricultural Society, we are, as yet, in the very infancy of our being, and most of us but little versed in the plans, doings and achievements, of older counties and older societies; but beckoned on and encouraged by the elder members of the family, like an infant, with much trembling anxiety, we have to-day taken our first step towards manhood, and as a Society we feel something of that childish satisfaction so characteristic of the first achievement.

But instead of stopping too long to congratulate one another on our past attainments, let us rather inscribe on our banner—Onward, still Onward!

But why, it is asked by some, why all this expense of time and labor and money, in organizing and sustaining a County Agricultural Society? What public, or even private, benefits are expected to result therefrom? To such, or similar inquiries, I answer, first: We need such an organization, with such an annual gathering as this, in the county, as a means of social acquaintance, and as a bond of said union. We are social beings, endowed with social natures, and we can no more attain the highest ends of our existence, or even of our organized existence as a county, by dwelling alone, than could Adam in the solitudes of Eden. We must be brought together, man with man, families with families, individuals with individuals. We need to come in contact, freed from all formal restraints. Our natures demand this; our social influence and enjoyment demand it; our best interest and highest prosperity, and most extensive usefulness as a county, demand that there be an annual gathering from all parts of the county; that they come from Mounts Carmel and Olivet, from beside the rapids of the Grand River, that they come from the Delta, rich in its productions like that of the Nile, that they come from the fields on which the sun so genially shines, that the ville in which the Green Mountain Boys dwell should also have a name and

a place in the great congregation, that the sons and daughters of Kalamo, like Virgil of old, singing so sweetly on a Kalamus or reed, should by no means be found wanting; yea, all our varied, individual, social and public interests, conspire to demand that the masses from every nook and crook and corner of the county flow together like drops of water in one common reservoir.

In an important sense as citizens of this county, we are literally one, members of one body politic, bound together by common cords, and bands, and ligaments. But so peculiarly is this county situated, with most of its villages and business centers on the opposite extremes of the county, and with still larger villages in other counties in opposite directions, that the whole tendency of our business transactions is to cast us asunder; to sever man from man, and town from town; to create opposing jarring interests, thus to turn those who should be brothers into the similitude of the sons of Esau, with their hands, every man against his neighbor and against his brother. Ordinarily, from week to week and month to month, yea, from year to year, we see not each others' faces; we know not each other; we have no common feelings and common interests, one towards the other; there is no common pulsation of the blood flowing from the heart, giving equal life and activity to all the extremities.

We have, indeed, our religious convocations, but they are of so many names and descriptions and kinds, as utterly to fail of being a common bond of union to all the citizens of the county; and as to our political gatherings, they are confined mostly to the men, even in this age of boasted woman's rights.

Besides, there are among us so many who are either Whigs or Democrats, or Republicans, or Know-Somethings, or Know-Nothings, that instead of cementing with the strong cords of union and love, they often thrust us farther and farther asunder. Their forces, instead of being centripetal, are oftimes centrifugal, even with a vengeance.

In the Agricultural Society *alone*, we have a common centre, and a common bond. There is a platform on which we may meet with cheerful countenances and cordial greetings. Here all local interests are merged in one common interest of general improvement; here all party names are forgotten, or give place to the general name of friend of ag-

riculture, and of the mechanical arts; here all strifes converge into the one laudable strife for excellence in that which is honorable, in that which is useful, in that which is beautiful, in that which promotes the general good at the same time that it honors and enriches the individual possessor. Here comes the farmer bringing with him the richest products of the soil; here, too, is his wife, with the choicest from her stores, and with the brightest and gayest of her flowers; here comes the maiden with her pencillings and drawings, and her fancy needle work, whilst the young man is here, also, with the prancing steeds and the beautiful flocks; here, too, comes the worker in brass and in iron, the cunning artificer, and such also as play on the stringed instruments, all may meet in this one annual festival; all may thus form or renew old acquaintances and friendships. Thus the social natures of all may be materially benefitted, whilst the bond of unity is greatly strengthened. The heart will accordingly beat more strongly; the extremities will feel the pulsations more sensibly.

Again: An Agricultural Society was demanded, as a means of advancing the agricultural and mechanical interests of the county. It scarcely need be repeated the 999th time, that the present is emphatically an age of improvement; of improvement in the arts and sciences; of improvement in the means of cultivating the soil, and in the rearing of stock. But improvements in these several departments are no more to be looked for without appropriate instrumentalities, than light and heat without the shining of the sun. Now the tendency of an agricultural society, with a well managed Annual Fair, as all experience in other counties and other States abundantly testifies, is to beget a spirit of laudable emulation between the several townships of the county, as well as between individuals of the same. Even in this money loving age, the mind needs exciting and waking up to action by something foreign to itself. Emphatically is this true in a county so inland and so isolated from the great centres and thoroughfares of business, as is ours. So long have very many of our citizens been secluded from the stirring, sterling activities of the busy world, that in many respects there seems to have been a kind of retrograde movement: a carelessness in the oversight of the farm, and the care of the stock; a laying aside, or neglect of those mechanical aids which in many places

are so successfully employed in the prosecution of the daily business of life.

In addition to all this, we were generally ignorant of many of those improvements and facilities in business, which in older counties, or older States,even the children are familiar with. We want, then, knowledge; and we want an honorable rivalship. We need not only to see what is to be seen, as owned or manufactured within our own county, but we need to become familiar with the stock, and the productions of the soil, and the achievements of art and science in other counties, and in other States.

Now the Annual Fair of an agricultural society, is calculated to bring together the choicest, the best, the finest, the most beautiful, the greatest variety, and the most useful, from all sections of the land. Not only so; its tendency is also to draw together the inhabitants from all parts, so that they may see and know for a verity, of those things, of which perchance they may have read or heard, but which were regarded as more fabulous than true.

By seeing they become convinced; they are made almost ashamed of their past ignorance; they are confounded at the reality; they are stimulated to go and do likewise. This is a moral certainty, they will seek to imitate; for by a law of man's nature, he is a creature of imitation. We insensibly catch the tones, the manners, the habits of others. What others do, we are quite likely to do. As is the parent, so is the child; as is one citizen, so, soon becomes another.

As is one town or county, so shortly is another; seeing the choicest and best of the stock reared in or without the county, many will be led to secure to themselves, if possible, that which is equally good. Witnessing the construction and the operation of an almost nameless variety of machinery, some will be excited to go and construct the like, or that which is better; others led to procure for themselves or their families, a variety of simple machinery, peculiarly calculated to facilitate as well as render more easy, very much of the exhausting labor of life.

Seeing the choicest of the fruits; the apples, the pears, the quinces, the peaches, the plums, the apricots, the nectarines; the productions also of the garden and the field; many will be led to say—"We also must have the like of these; for they are so large, so productive, so excellent in quality; such butter too, and such cheese, almost like gold itself; such bread, and cake, and pickles and preserves; and then as to those

paintings and drawings, and those specimens of needlework, and of leatherwork, to say nothing of the carpets, the flannels, the quilts, and ten thousand "et ceteras" so nicely got up, so beautiful. Another year shall tell that our wives and our daughters are not to be outdone, in those matters of domestic labor and comfort.

My hearers: I am drawing no fancy picture of the tendency of these agricultural fairs; I am speaking of the sober realities of nature and of facts. I am speaking of the present workings pent up in your own breasts, of your present plans and determinations. These influences have for years been working in older States, and in older settled parts of this State, till at length the inhabitants thereof have attained a degree of perfection in the rearing of stock; in agriculture and floriculture; in the mechanical arts, and in works of comfort, fancy and taste, truly astonishing to the beholder. Such a perfection as no prophet or son of a prophet, only a score of years ago would have dared to predict. The leaven is already working in our own county. The fine specimens of elegance, utility and taste witnessed in the several departments, at this our first Annual Fair, show conclusively that our own citizens also, are beginning to feel and to act under the genial influences of a spirit of improvement. These first fruits, however, are but the earnests, the foretastes of those richer manifestations yet to come; as certain as that mind is capable of being moved by genial impulses, and that like causes produce like results, so certain is it the influence of this agricultural society is destined ere long, to revolutionize the entire agricultural and mechanical operations of the county. The fire is kindled, and no one can well extinguish it. The pebble is thrown upon the waters, and circle will encompass circle, till the whole surface is disturbed. The introduction of some of the best blooded stock into any one or more of the towns, is destined to create such a desire for improvement in that department of husbandry, such a spirit of honorable rivalship among the citizens, that ere long the poorest man that owns a cow, will talk of his noble Durham, or of his beautiful Devon.

The sprightly, active, wide awake Morgan, or the wild fire of a Black Hawk will grace every carriage; and instead of those shadow-like apologies for swine so often witnessed, will be seen the noble Leicester commingling with those beautiful, fleshy, well turned and well proportioned Suffolks. Now all this is just what is needed in a new county like

ours; so much is to be done in clearing away the wilderness, in making roads, bridges and fences; in erecting barns and houses, &c. So much also is to be done in the domestic department, within doors, in time of health, and especially in seasons of general sickness; and besides, help in the field, the shop and the house, is so scarce, wages so dear, and the clear profits of the old system of husbandry so limited, that men are now shut up to the necessity of devising some plan by which there may be a saving of at least a little of the bone and sinew and the marrow of life.

Something by which the cow and the horse, the sheep and the swine, with a little extra care and expense, may be doubled or even trebled in value. There needs to be, and there will be a speedy introduction of the best and the most economical labor saving machines; an improvement in the blood of stock, as well as in the management of it; more pains taken in the kinds of grain raised, as well as in their cultivation. More attention must and will be given to the raising of root crops, somewhat after the manner of English husbandry. There should and will be raised a choicer variety of fruits. The vegetable garden must and will receive a greater share of attention, and a beautiful flower garden will have a more prominent place in the labors of the fathers and of the sons, in the attentions of the wives and of the daughters. I repeat: All these things must and will be done. The mind of man hath so decreed; the finger of Providence points it out; the necessities of the case demand it at our hands. And in these most desirable changes in the labors, habits, tastes, enjoyments and resources of the inhabitants of this county, the agricultural society, whose fair we have this day attended, will bear no insignificant part. Her agency will be prominent; her light will be like the moon in the midst of a starless night.

Some may, indeed, for a time hold on to their prejudices, but like the drifts of snow before the vernal sun, they will gradually melt away. Others may urge aristocracy and favoritism, and through self-will make a desperate effort to outdo by their motives, and otherwise, those who have been at much expense in setting in operation plans of reform; but all this will only prove the truth of our proposition, and accomplish the very thing desired, viz.: general improvement in agriculture, in the arts,

in all that which adds wealth to a community, which modifies the wear and tear of human life, and indirectly promotes the good taste, the correct deportment, the comfort, and the usefulness of the great mass of the community.

Fellow citizens, I will not detain you longer with these plain, common-sense remarks and suggestions. In behalf of the Society in whose name we speak, let me express to the ladies our ten thousand obligations and thanks for your timely, tasteful, pains-taking efforts, to impart interest, pleasure and profit, to this, our first public exhibition.

To the gentlemen who have contributed of their means, or who have presented their finest and best, our cordial gratifications are due. Go on, then, in the race commenced. If successful competitors, you have our congratulations, and our assurances, also, that if you excel all others another year, it must be by increased care, and labor, and expense. But go on: our soil is rich enough; our resources are abundant; our mental, mechanical skill, is not yet exhausted; the goal of perfection none of us has yet attained.

To the citizens of Charlotte who have gratuitously provided and arranged all these fixtures for this our annual fair, accept at our hands these, our sincere thanks, and expect that having cast your bread upon the waters, you shall find it ere many days.

To the members of the executive committee, let me congratulate you upon this, our successful issue. The past year has indeed been one of much painful anxiety, of inexperience, of effort, and of expense both of time and money; but the fruits of our labors this day witnessed, more than compensate for all. In some of our plans and regulations we may have erred, but the experience of the past will guard against the like in future. All that was ardently desired, has, indeed, by no means been accomplished this first year of our organization, but we see no adequate ground of discouragement. Causes are at work which will produce their legitimate effects. The seed which has been sown will ere long produce a plentiful harvest. Then the sower and the reaper will rejoice together.

Fellow citizens, and all who hear me this day, our best wishes attend you. Renew your diligent efforts towards interesting all the inhabitants of the county, in these so much needed, so praiseworthy

undertakings; and may it be your unwavering determination to make the Eaton County Agricultural Society one of the most prosperous, as well as one of the most useful of all the Agricultural Societies in the State.

GENESEE COUNTY.

SIXTH ANNUAL REPORT OF THE GENESEE COUNTY AGRICULTURAL SOCIETY—1855.

At the Fifth Annual Meeting of the Society, held on January 10th, 1855, the following officers were elected for the year which has just terminated:

President—Benjamin Pierson.

Vice Presidents—One in each Township:

Argentine, Isaac Wixom.

Atlas, Enos Goodrich.

Clayton, J. E. Brown.

Davison, Goodenough Townsend.

Fenton, S. C. Sadler.

Flint, Levi Walker.

Flushing, W. J. Kent.

Forest, John Crawford.

Gaines, James Van Vleet.

Genesee, N. H. Chittenden.

Grand Blanc, J. W. King.

Montrose, John Mackenzie.

Mundy, John Richards.

Richfield, Alanson Munger.

Thetford, C. E. Fay.

Vienna, Austin Griffes.

Secretary—F. H. Rankin.

Treasurer—M. L. Higgins.

Executive Committee—Jonathan Dayton, A. E. Wilcox, C. H.

Rockwood, Daniel Clarke, J. A. Walker, George Andrews, D. N. Montague.

Auditors—Warner Lake, L. G. Buckingham.

According to the Treasurer's report, the financial account of the Society for the year 1854, stood thus:

Balance on hand from 1853,	$ 56 17	
Receipts in 1854,	260 50	
Total,		$316 67
Amount of premiums paid,	$212 87	
Other expenses of the Society,	63 01	
Total,		$275 88
Leaving balance in the Treasury of		$ 40 79

In addition to the amount passing through the Treasurer's hands, as above, the President reported having received $254 80 raised by tax from the county, for agricultural purposes, $100 00 of which was paid as the first instalment of the purchase money for the Fair Grounds, and the balance expended for lumber, materials and labor, in fencing the grounds and preparing them for the purposes of the Fair.

Two amendments to the Constitution were adopted at the last Annual Meeting; the first dispensing with the provision which required all members to subscribe the Constitution; the second giving the Executive Committee the power of appointing the time for holding the Annual Fairs.

The Executive Committee held a meeting on the 15th of March, when they prepared and fixed the following regulations and

LIST OF PREMIUMS,

To be awarded at the Sixth Annual Fair of the Genesee County Agricultural Society, to be held on Wednesday and Thursday, the 10th and 11th days of October, 1855.

FARMS.

1. Best cultivated farm, not less than forty acres, and not less than 25 acres cultivated, Patent Office Report, and $5 00
2. Second best cultivated farm, not less than forty acres, and

not less than twenty-five acres cultivated, Patent Office Report, and $4 00

3. Third best cultivated farm, not less than forty acres, and not less than twenty-five acres cultivated, Patent Office Report, and 3 00

Viewing Committee on Farms.—A. B. Pratt, of Genesee; Gurdon Watrous, of Grand Blanc; H. L. Wilcox, of Genesee.

Competitors for the premiums on farms, are required to notify the Secretary of their intention to offer their farms in competition, on or before the first day of June next.

The viewing committee are requested to visit the farms entered for competition, during the last week of June.

In making their adjudication, the committee will take into consideration the condition of the farm buildings, fences, and general order of the farms, as well as the cultivation and crops raised.

CATTLE.

1. Best full-blooded short-horned Durham bull, 1 year old or over, ... $5 00
2. 2d best full-blooded short-horned Durham bull, 1 year old or over, ... 4 00
3. 3d best full-blooded short-horned Durham bull, 1 year old or over, ... 3 00
4. Best full-blooded Devon bull, 1 year old or over, ... 5 00
5. 2d " " " " 4 00
6. 3d " " " " 3 00
7. Best bull 2 years old or over, Patent Office Report and ... 3 00
8. 2d " " " .. 2 00
9. 3d " " " .. 1 00
10. Best yearling bull, Patent Office Report and 3 00
11. 2d " " 2 00
12. 3d " " 1 00
13. Best bull calf, Patent Office Report and 2 00
14. 2d " " 1 50
15. 3d " " 1 00
16. Best milch cow, Patent Office Report and 3 00
17. 2d " " 2 00

18.	3d best milch cow, Patent Office Report and	$1 00
19.	Best yoke working oxen,	5 00
20.	2d " Patent Office Report and	3 00
21.	3d " "	2 00
22.	Best yoke of 4 year old steers, Patent Office Report and	3 00
23.	2d " " "	2 00
24.	3d " " "	1 00
25.	Best yoke of 3 year old steers,	3 00
26.	2d "	2 00
27.	3d "	1 00
28.	Best yoke of 2 year old steers,	2 00
29.	2d "	1 50
30.	3d "	1 00
31.	Best yoke yearling steers,	2 00
32.	2d "	1 00
33.	3d "	50
34.	Best 2 year old heifer,	2 00
35.	2d "	1 00
36.	3d "	50
37.	Best yearling heifer,	1 50
38.	2d "	1 00
39.	3d "	50
40.	Best heifer calf,	1 00
41.	2d "	50

HORSES.

1.	Best stallion 4 years old or over,	$4 00
2.	2d " "	3 00
3.	3d " "	2 00
4.	Best 3 year old stallion,	3 00
5.	2d "	2 00
6.	Best brood mare with foal by her side, 4 years old or over, Patent Office Report and	3 00
7.	2d best brood mare with foal by her side, 4 years old or over, Patent Office Report and	2 00
8.	3d best brood mare with foal by her side, 4 years old or over, Patent Office Report and	1 00

9. Best span of matched horses, 4 years old or over, Patent Office Report and	$4 00
10. 2d best span of matched horses, 4 years old or over, Patent Office Report and	3 00
11. 3d best span of matched horses, 4 years old or over, Patent Office Report and	2 00
12. Best gelding 4 year old or over,	2 00
13. 2d "	1 50
14. 3d "	1 00
15. Best 3 year old gelding,	2 00
16. 2d "	1 00
17. Best mare 4 year old or over,	2 00
18. 2d best " "	1 00
19. Best 3 year old mare,	2 00
20. 2d best "	1 00
21. Best 2 year old colt, gelding or stallion,	2 00
22. 2d " " "	1 00
23. Best 2 year old mare colt,	2 00
24. 2d " "	1 00
25. Best yearling colt,	1 00
26. 2d best "	50

Any span of horses entered for competition as matched horses, must resemble each other in size, form, color and action.

SHEEP.—SPANISH—FULL BLOODED OR HIGH GRADE.

1. Best fine wool buck, 1 year old or over, Patent Office Report and	$3 00
2. 2d best fine wool buck, 1 year old or over, Patent Office Report and	2 00
3. 3d best fine wool buck, 1 year old or over, Patent Office Report and	1 00
4. Best pen of 5 ewes,	3 00
5. 2d best pen of 5 ewes,	2 00
6. 3d " "	1 00
7. Best pen of 5 buck lambs, Patent Office Report and	3 00
8. 2d " " "	2 00
9. 3d " " "	1 00

10. Best pen of 5 ewe lambs, Patent Office Report and..... $3 00
11. 2d " " " 2 00
12. 3d " " " 1 00

FRENCH—FULL BLOODED OR HIGH GRADE.

13. Best fine wool buck, 1 year old or over, Patent Office Report and..... $3 00
14. 2d best fine wool buck, 1 year old or over, Patent Office Report and..... 2 00
15. 3d best fine wool buck, 1 year old or over, Patent Office Report and..... 1 00
16. Best pen of 5 ewes,..... 3 00
17. 2d best " 2 00
18. 3d best " 1 00
19. Best pen of 5 buck lambs, Patent Office Report and..... 3 00
20. 2d best " " " 2 00
21. 3d best " " " ..... 1 00.
22. Best pen of 5 ewe lambs, Patent Office Report and..... 3 00
23. 2d best " " " 2 00
24. 3d best " " " 1 00
25. Best Leicestershire buck and 2 ewes,..... 2 00
26. Best Southdown buck and 2 ewes, Patent Office Report and..... 2 00
27. 2d best Southdown buck and 2 ewes, Patent Office Report and..... 1 00

SWINE.

1. Best boar 1 year old or over, Patent Office Report and... $3 00
2. 2d " " " " ... 2 00
3. 3d " " " " ... 1 00
4. Best boar 4 months old or over,..... 2 00
5. 2d " " 1 00
6. Best sow and not less than 5 pigs, Patent Office Report and..... 3 00
7. 2d best sow and not less than 5 pigs, Patent Office Report and..... 2 00
8. 3d best sow and not less than 5 pigs, Patent Office Report and..... 1 00

POULTRY.

1.	Best Brahma Pootra cock and 2 hens,	$0 75
2.	2d best " "	50
3.	Best Dorking cock and 2 hens,	75
4.	2d best " "	50
5.	Best Shanghai cock and 2 hens,	75
6.	2d best " "	50
7.	Best Cochin China cock and 2 hens,	75
8.	2d best " "	50
9.	Best lot of poultry not less than five,	75
10.	2d best " "	50
11.	Best turkeys, not less than three,	75
12.	2d best " "	50

FARMING IMPLEMENTS, &c.

1.	Best breaking-up plow for general purposes, Patent Office Report and	$3 00
2.	2d best breaking-up plow for general purposes, Patent Office Report and	2 00
3.	Best plow for single team, for general purposes, Patent Office Report and	2 00
4.	2d best plow for single team, for general purposes, Patent Office Report and	1 00
5.	Best farm wagon, Patent Office Report and	3 00
6.	2d " "	2 00
7.	3d " "	1 00
8.	Best harrow, "	1 00
9.	Best general cultivator, "	1 00
10.	Best fanning mill, "	2 00
11.	Best straw cutter, "	1 00
12.	Best corn and cob crusher, "	2 00
13.	Best horse cart for farm,	1 00
14.	Best ox "	1 00
15.	Best horse rake,	1 00
16.	Best ox yoke,	50
17.	Best grain cradle,	1 00
18.	Best 6 hand rakes,	50

19.	Best 6 hay forks,	$0 50
20.	Best 6 manure forks,	50
21.	Best hay rigging for wagon,	50
22.	Best threshing machine, Patent Office Report and	2 00
23.	Best corn sheller, hand power,	50
24.	Best and most collective assortment of agricultural implements, manufactured in this county, under the supervision of the exhibitor, Patent Office Report and	2 00
25.	Best horsepower for general purposes, Patent Office Report and	2 00
26.	Best stump puller,	50
27.	Best wagon jack,	50

BUTTER, CHEESE, &C.

1.	Best 5 lbs. butter, Patent Office Report and	1 00
2.	2d " "	75
3.	3d " "	50
4.	4th " "	
5.	Best cheese, "	1 00
6.	2d " "	75
7.	3d " "	50
8.	5th " "	

DOMESTIC MANUFACTURES.

1.	Best woolen shawl,	$1 00
2.	2d "	50
3.	Best pair woolen blankets,	1 00
4.	2d "	50
5.	Best 10 yards flannel,	1 00
6.	2d "	50
7.	Best 10 yards woolen cloth,	1 00
8.	2d "	50
9.	Best 10 yards woolen carpet,	1 00
10.	2d " "	50
11.	Best 10 yards rag carpet,	1 00
12.	2d " "	50
13.	Best 10 yards tow cloth,	1 00
14.	2d " "	50

15. Best hearth rug, ... $0 50

HOSIERY.

1. Best pair woolen knit stockings, ... $0 50
2. 2d " " 25
3. Best pair cotton knit stockings, ... 50
4. 2d " " 25
5. Best pair linen " 50
6. 2d " " 25
7. Best pair woolen socks, ... 50
8. 2d " 25
9. Best pair cotton socks, ... 50
10. 2d " 25
11. Best pair woolen knit mittens, ... 50
12. 2d " " 25
13. Best pair woolen knit gloves, ... 50
14. 2d " " 25
15. Best pair silk knit mitts, ... 75
16. 2d " " 50
17. Best pair cotton knit gloves, ... 75
18. 2d " " 50

ORNAMENTAL NEEDLEWORK.

1. Best and greatest variety of worsted work, ... $1 00
2. 2d " " 50
3. Best ornamental needlework, ... 50
4. 2d " 25
5. Best ottoman cover, ... 50
6. 2d " 25
7. Best table cover, ... 50
8. 2d " 25
9. Best worsted work portfolio, ... 50
10. 2d " " 25
11. Best fancy chair work with needle, ... 50
12. 2d " " " 25
13. Best worked collar, ... 50
14. 2d best " 25
15. Best worked quilt, ... 1 00

16. 2d best worked quilt, ... $0 50
17. Best white quilt, ... 50
18. 2d best " 25
19. Best lace cap, ... 50
20. 2d best " 25
21. Best 2 lamp mats, ... 50
22. 2d best " 25
23. Best silk bonnet, ... 50
24. 2d best " 25
25. Best straw bonnet, ... 50
26. 2d best " 25
27. Best straw hat, ... 25

Discretionary premiums will be awarded on articles of merit, not included in the above list.

FANCY WORK.

1. Best specimen of ornamental shell work, ... $1 00
2. 2d best " " 50
3. Best specimen of wax flowers, ... 1 00
4. 2d best " " 75
5. 3d best " " 50
6. Best and largest collection of artificial flowers, ... 1 00
7. Best specimen of artificial flowers, ... 75
8. 2d best " " 50
9. 3d best " " 25
10. Best oil painting, ... 1 00
11. 2d best oil " 75
12. 3d best oil " 50
13. Best water color painting, ... 75
14. 2d best " 50
15. 3d best " 25
16. Best specimen cattle drawing, ... 1 00
17. 2d best " 50
18. Best daguerreotype, ... 1 00

Discretionary premiums will be awarded on manufactured articles of merit not included in the above list.

FLOWERS.

1.	Greatest variety and quantity of flowers,	$0 50
2.	Best and greatest variety of dahlias,	50
3.	Best 10 dissimilar blooms, "	50
4.	Best and greatest variety of roses,	50
5.	Best 10 dissimilar blooms, "	50
6.	Best and greatest variety of indigenous plants,	50
7.	Best collection of green house plants owned by one person,	50
8.	Best floral design,	50
9.	Best hand bouquet,	50
10.	Best basket bouquet, with handle,	50
11.	Best grass bouquet,	50

FRUIT.

1.	Best assortment and greatest variety of table apples, correctly named,	$2 00
2.	2d best assortment and greatest variety of table apples, correctly named,	1 50
3.	3d best assortment and greatest variety of table apples, correctly named,	1 00
4.	4th best assortment and greatest variety of table apples, correctly named,	50
5.	Best single variety of table apples, not less than six specimens,	50
6.	Best assortment and greatest variety of winter apples, correctly named,	2 00
7.	2d best assortment and greatest variety of winter apples, correctly named,	1 75
8.	3d best assortment and greatest variety of winter apples, correctly named,	1 50
9.	4th best assortment and greatest variety of winter apples, correctly named,	1 25
10.	5th best assortment and greatest variety of winter apples, correctly named,	1 00
11.	6th best assortment and greatest variety of winter apples, correctly named,	75

12. Best assortment and greatest variety of pears, correctly named, ... $1 00
13. 2d best assortment and greatest variety of pears, correctly named, ... 75
14. 3d best assortment and greatest variety of pears, correctly named, ... 50
15. Best single variety of pears, not less than 6 specimens, ... 75
16. 2d best " " " 50
17. Best assortment and greatest variety of peaches, ... 75
18. 2d best " " " 50
19. 3d best " " " 25
20. Best 4 varieties of plums, 6 specimens each, ... 50
21. Best collection of plums, 6 " 50
22. Best 12 plums, any choice variety, ... 50
23. Best and greatest number of good varieties of nectarines and apricots, 6 specimens each, ... 50
24. Best 6 specimens of any good variety, ... 50
25. Best lot of quinces, not less than 6 specimens, ... 1 00
26. 2d best " " " 75
27. 3d best " " " 50
28. Best and most extensive collection of grapes, ... 1 00
29. 2d best " " 75
30. 3d best " " 50
31. Best specimen of grapes, ... 1 00
32. 2d best " 75
33. 3d best " 50
34. Best specimens of any variety of water melons, ... 50

Discretionary premiums will be awarded for choice fruits not enumerated in the above list.

VEGETABLES.

1. Best 6 heads celery, ... $0 50
2. 2d best 6 " 25
3. Best 3 heads cauliflower, ... 50
4. 2d best 3 " 25
5. Best 3 heads broccoli, ... 50
6. 2d best 3 " 25

7.	Best 12 white table turnips,	$0 50
8.	2d best 12 "	25
9.	Best 12 beets,	50
10.	2d best "	25
11.	Best 12 parsneps,	50
12.	2d best "	25
13.	Best 12 carrots,	50
14.	2d best "	25
15.	Best 12 onions,	50
16.	2d best "	25
17.	Best 3 heads cabbage,	50
18.	2d best 3 "	25
19.	Best 12 tomatoes,	50
20.	2d best "	25
21.	Best peck beans, any variety,	25
22.	Best bunch double parsley,	25
23.	Best winter squash,	75
24.	2d best "	50
25.	3d best "	25
26.	Best and largest pumpkin,	25
27.	Best peck table potatoes,	25
28.	Best specimen sweet potatoes,	50
29.	2d best "	25
30.	Best and greatest variety of vegetables raised by exhibitor,	50

HORSE SHOEING.

1.	Span of horses best shod,	$1 00

FLOUR.

1.	Best barrel of flour from least wheat, (with a full statement of same,)	$1 00
2.	2d best barrel of flour from least wheat, (with a full statement of same,)	75

SAMPLES OF FIELD CROPS.

1.	Best sample of winter wheat, not less than one bushel,	$1 00
2.	2d best " " " "	50
3.	Best " spring wheat, " "	1 00

4.	2d best sample of spring wheat, not less than one bushel,	$0 50
5.	Best " corn, not less than one bushel of ears,	50
6.	2d best " " " "	25
7.	Best 12 ears of seed corn,	50
8.	2d best 12 " "	25
9.	Best sample of oats, not less than one bushel,	50
10.	2d best " " "	25
11.	Best sample of peas, not less than one bushel,	50
12.	2d best " " "	25
13.	Best sample of flax seed, not less than one bushel,	50
14.	2d best " " "	25
15.	Best sample of barley, not less than one bushel,	50
16.	2d best " " "	25
17.	Best sample of clover seed, not less than half a bushel,	1 00
18.	2d best " " "	50
19.	Best sample of timothy seed, not less than half a bushel,	50
20.	2d best " " "	25

Discretionary premiums will be awarded on meritorious products of the soil, not enumerated in the above list.

MISCELLANEOUS.

1.	Best buggy,	$2 00
2.	Best carriage harness,	1 00
3.	Best wagon harness for farm,	1 00
4.	Best bureau,	1 00
5.	Best table,	50
6.	Best variety of cabinet ware,	1 00
7.	Best window blinds,	1 00
8.	Best window sash, 24 lights,	50
9.	Best panel door,	50
10.	Best notch clevis,	50
11.	Best churn,	50
12.	Best pork barrel,	50
13.	Best flour barrel,	25
14.	Best wash tub,	50
15.	Best half dozen pails,	50
16.	Best variety of stone ware,	50

17. Best box of saleratus, not less than 100 pounds, ... $0 50
18. Best two half thousand bunches shingles, ... 1 00
19. Best thousand brick, ten to be exhibited, ... 50
20. Best 12 corn brooms, ... 50
21. Best bee-hive, ... 50
22. Best 10 lbs. honey, ... 50
23. Best 5 lbs. maple sugar, with process of manufacturing and clarifying, ... 50
24. Best gallon of maple molasses, ... 50
25. Best made coat, ... 50
26. Best pair fine boots, ... 50
27. Best pair coarse boots, ... 50
28. Best pair buckskin mittens, ... 50
29. " " gloves, ... 50
30. Best specimen of bookbinding, ... 50
31. Best chain pump, ... 50

PLOWING MATCHES.

1. Best plowing match with horses, ... $3 00
2. 2d " " 2 00
3. 3d " " 1 00
4. Best plowing match with oxen, ... 3 00
5. 2d " " 2 00
6. 3d " " 1 00

FIELD CROPS.

1. Best crop of winter wheat, not less than one acre, Patent Office Report and $3 00
2. 2d best crop of winter wheat, not less than one acre, Patent Office Report and 2 00
3. 3d best crop of winter wheat, not less than one acre, Patent Office Report and 1 00
4. Best crop of Indian corn, not less than one acre, Patent Office Report and 3 00
5. 2d best crop of Indian corn, not less than one acre, Patent Office Report and 2 00
6. 3d best crop of Indian corn, not less than one acre, Patent Office Report and 1 00

7. Best crop of oats, not less than one acre, Patent Office Report and $2 00
8. 2d best crop of oats, not less than one acre, Patent Office Report and 1 00
9. Best crop of barley, not less than one acre, Patent Office Report and 2 00
10. 2d best crop of barley, not less than one acre, Patent Office Report and 1 00
11. Best crop of potatoes, not less than half an acre, Patent Office Report and 2 00
12. 2d best crop of potatoes, not less than half an acre, Patent Office Report and 1 00
13. Best crop of ruta bagas, not less than half an acre, Patent Office Report and 2 00
14. 2d best crop of ruta bagas, not less than half an acre, Patent Office Report and 1 00
15. Best crop of broom corn, not less than half an acre, Patent Office Report and 2 00
16. 2d best crop of broom corn, not less than half an acre, Patent Office Report and 1 00
17. Best crop of carrots, not less than one-fourth of an acre, Patent Office Report and 2 00
18. 2d best crop of carrots, not less than one-fourth of an acre, Patent Office Report and 1 00
19. Best crop of mangel wurtzel, not less than one-fourth of an acre, Patent Office Report and 2 00
20. 2d best crop of mangel wurtzel, not less than one-fourth of an acre, Patent Office Report and 1 00
21. Best crop of clover seed, not less than one acre, Patent Office Report and 3 00
22. 2d best crop of clover seed, not less than one acre, Patent Office Report and 2 00
23. 3d best crop of clover seed, not less than one acre, Patent Office Report and 1 00
24. Best crop of beans, not less than one-fourth of an acre, Patent Office Report and 2 00
25. 2d best crop of beans, not less than one-fourth of an acre, Patent Office Report and 1 00

26. Best crop of peas, not less than one acre, Patent Office Report and $2 00
27. 2d best crop of peas, not less than one acre, Patent Office Report and 1 00
28. Best crop of flax, not less than one acre, Patent Office Report and 2 00
29. 2d best crop of flax, not less than one acre, Patent Office Report and 1 00

Applications for premiums on field crops may be entered on the days of the Fair. Competitors will be required to furnish, for the information of the viewing committee, full statements as to the manner of cultivation, together with satisfactory evidence of the amount of produce; said statements to be handed to the Secretary on or before the first day of December. The premiums will be awarded on the first Wednesday in December. All field crops must be weighed or measured.

P. S. The Society have on hand a number of valuable Congressional publications, placed at their disposal by Hon. James L. Conger; also some copies of the Transactions of the Michigan State Agricultural Society; which the Executive Committee purpose distributing as discretionary premiums, in addition to those specified in the above list.

No premium will be awarded on any product of the soil that did not grow in this county.

No premium will be awarded on any manufactured articles, which have not been manufactured in this county.

No premium will be awarded on any manufactured articles which have drawn premiums at any previous exhibition of this Society.

No animals or other products will be entitled to compete for premiums unless they have been first entered upon the books of the Society, under the instructions of the Marshal; and all articles or animals entered for competition, after being viewed by the judges must remain upon the ground until the list of premiums is declared off. All animals taken on the show ground must be properly secured.

No person competing for premiums can act as judge in that class in which he is a competitor.

Article 2d of the by-laws provides that "no animals or other product shall be entitled to a premium, but such as actually belong to, and are

bona fide the property of members whose subscription shall have been paid" at the time of exhibition.

Measures were also taken at that meeting for the payment to Messrs. Fenton & Bishop of $200, on account of the principal, and the whole of the interest, due on the purchase money for the fair grounds. This leaves only $100 remaining due of the price of the land, and doubtless the funds of the Society will admit of the debt being fully paid off in 1856.

Under the terms of the agreement upon which the land was purchased, it was not necessary to have paid the money at this time, and the amount might have been appropriated to increase the premium list, by allowing the debt of the Society to remain; but the committee were unanimously of opinion that it would be for the best interest of the Society, on many accounts, to have their grounds paid for and free from incumbrance, at as early a day as practicable; and they have acted accordingly. $300, besides interest, have now been paid on this account, in less than two years, and after the remaining $100 shall have been paid, there will be a proportionate amount, annually available for other purposes of the Society—if supported by the citizens as well as heretofore—coupled with the unincumbered ownership of a very valuable piece of property.

On the 30th of August the committee held another meeting, when the usual viewing committees were appointed to act as Judges at the annual fair, and Lyman G. Buckingham, Esq., appointed Marshal thereof.

Our sixth annual fair was held on Wednesday and Thursday, the 10th and 11th days of October. The weather was as fine as could be desired, the attendance much larger than ever before, and except that the competition was limited in some few classes of stock and articles of manufacture, the exhibition at this fair was far in advance of all previous ones held in our county.

In the important classes of cattle and horses, the numbers brought upon the ground largely exceeded those of any preceding year; while the quality and blood of the animals, exhibited a most marked and gratifying improvement; showing that our farmers fully understand the value of superior stock.

The display of fruit was fine, particularly apples; but the viewing

committee complain in their report, of being retarded in the performance of their duty, by the want of care and correctness of competitors in naming the fruit exhibited, from which cause some very meritorious specimens could not be awarded the premiums to which otherwise they might have been entitled. On this point, your committee would reiterate the recommendation of the viewing committee, that fruit growers should devote more attention to the accurate naming of their fruit. Experience is fast proving our county to be well adapted to the production of fine fruit, and every year new orchards are planted out. Under these circumstances it is of more than common importance to attend to this matter, in order that we may know the varieties most worthy of cultivation.

The show of vegetables was also very extensive and superior, the judges in that class reporting that, amid the great number and excellence of the specimens around them, they found extreme difficulty in deciding which was best.

Of dairy products, the quantity or quality of butter at our fairs has never failed. This year it was as good as usual; while in cheese there was considerable improvement over former exhibitions.

In 1854 there were 382 members' tickets issued; the number issued in 1855 was 419. The number of entries for competition in 1854 was 327; in 1855, 382.

It having been represented to this committee that the owner of the horse to which the viewing committee adjudged the first premium for stallions four years old or over, was not a resident of this county, but of Tuscola, and nothing to the contrary appearing, they deemed it their duty to refuse payment of the premium, under the provision of section 11 of the Constitution of the Society. Also, that the horse to which was adjudged the first premium for geldings four years old or over, was not *bona fide* owned by the person in whose name he was entered; and the committee ordered the premium in this case to be withheld until they shall be satisfied upon the point in question.

With these exceptions, the awards made by the several viewing committees have been confirmed throughout by the Executive Committee, in accordance with the following reports:

CATTLE.

Full-blooded short horned Durham bulls, 1st premium awarded to R. B. Perry, 2d to Henry Schram, 3d to C. C. Pierson.

Full-blooded Devon bulls, 1st premium to A. E. & H. L. Wilcox, 2d to E. P. Hodge, 3d to B. A. Fay.

Native and grade bulls, 1st premium to William Chamberlain, 2d to C. A. Butler, 3d to Elias Van Shaick.

Yearling bulls, 1st premium to Ira Chase, 2d to Nathan Reed.

Bull calves, 1st premium to Jonathan Dayton, 2d to M. J. Putnam, 3d to John Kimball.

Milch cows, 1st premium to Dennis Wolverton, 2d to Nelson Norton, 3d to John Egan.

Working oxen, 1st premium to Horace Boomer, 2d to Ovid Hemphill.

Four year old steers, 1st premium to R. E. Stanard.

Three year old steers, 1st premium to Tunis Cole, 2d to Andrew Rhycard, also to Aaron Crosman, 3d to William Phillips.

Two year old steers, 1st premium to Jonathan Dayton, 2d to A. B. Pratt.

Yearling steers, 1st premium to B. A. Fay, 2d to Wm. Knowles, 3d to Ira Camp.

Two year old heifers, 1st premium to J. W. King.

Yearling heifers, 1st premium to Nathan Reed, 2d to J. W. King.

Heifer calves, 1st premium to Wm. Eckley, 2d to H. E. Adams.

Judges.—George Crocker, Isaac Schram, Norman Cone.

HORSES.

Stallions 4 years old or over, 1st premium to P. B. Richardson, 2d to E. W. Rising, 3d to L. Jacox.

[In this class the executive committee refuse to confirm the award of the 1st premium to Mr. Richardson's horse, on the ground that his owner is not a resident of the county, as required by section 2 of the Constitution of the Society.]

Brood mares, with foal by side, 1st premium to Asa Torrey, 2d to A. F. Sutton.

Matched horses, 1st premium to A. L. Bort & Co., 2d to Wm. Boomer.

Geldings 4 years old or over, 1st premium to Stephen Phelps, 2d to J. Adams, 3d to Samuel Aplin.

[In this class the executive committee withhold the payment of the 1st premium until they receive further information relative to the ownership of the horse entered by Mr. Phelps, objections to the award having been raised upon that point.]

Three year old geldings, 1st premium to A. Wolverton, 2d to John Taylor.

Three year old mares, 1st premium to A. Butterfield, 2d to A. Wolverton.

Two year old gelding or stallion colts, 1st premium to John Hill, 2d to Andrew Cook.

Two year old mare colts, 1st premium to Smith Wickam, 2d to Wm. Thomas.

Yearling colts, 1st premium to D. H. Seeley, 2d to Henry Dimond.

"The committee would recommend a discretionary premium to a blood mare, 'Fanny Booker,' exhibited by A. B. Donaldson."

Judges.—C. D. W. Gibson, J. B. Hamilton, T. V. Rogers.

SHEEP.—SPANISH—FULL BLOODED OR HIGH GRADE.

Fine-wool bucks, 1st premium to P. A. Skinner.

Pens of 5 ewes, 1st premium to R. B. Perry, 2d to R. B. Perry.

Pens of 5 ewe lambs, 1st premium to R. B. Perry.

FRENCH—FULL BLOODED OR HIGH GRADE.

Fine-wool bucks, 1st premium to Norman Cone.

LEICESTER.

Buck and 2 ewes, premium to Peter Slater.

"We, the undersigned committee, would report as follows, that there was no competition on sheep."

Judges.—William Schram, Gurdon Watrous, G. W. Thayer.

SWINE.

Sow and not less than 5 pigs, 1st premium to Wm. Parsons.

Judges.—P. A. Skinner, Asa Wolverton, Lewis Buckingham.

POULTRY.

Lot of poultry, not less than 5, 1st premium to C. C. Pierson.

"The committee would state that there was but one coop of fowls on the ground, and would recommend that the premium be awarded."

Judges.—Lewis Buckingham, Solomon Stone, Goodenough Townsend.

FARMING IMPLEMENTS, EXCEPT PLOWS.

Farm wagons, 1st premium to Samuel Aplin.

Fanning mills, premium to A. L. Bort & Co.

Stump puller, premium to J. N. Lake.

Discretionary premium recommended for a fanning mill exhibited by Perry Hunt.

"The committee beg to say that they have given the first premium on fanning mills to No. 186, on account of superior workmanship, not having means to try their merits on the ground."

Judges.—Thomas Partridge, Wm. Knowles, R. B. Perry.

BUTTER AND CHEESE.

Butter, 1st premium to Mrs. E. Drake, 2d to Mrs. J. L. Gage, 3d to C. C. Pierson, 4th to Mrs. M. E. Palmer.

Cheese, 1st premium to Grovenor Vinton, 2d to R. B. Perry, 3d to Grovenor Vinton, 4th to R. B. Perry.

Lot of butter exhibited by David Brown. "We find this lot highly recommendable, but in our opinion it is not sufficiently salted."

Cheese, exhibited by B. A. Fay. "We find this a very rich cheese, but in our estimation we think it is too highly flavored with sage."

"Your committee find but five specimens of butter on exhibition, all of which are of excellent quality. We find four specimens of cheese which we can recommend as first rate. We find others of very fine flavor, but in our opinion rather inferior to the four to which premiums are awarded."

Judges.—G. S. Hopkins, Mrs. Henry Schram, R. W. Dullam.

DOMESTIC MANUFACTURES, EXCEPT HOSIERY.

Flannel, 1st premium to Gurdon Watrous, 2d to David Felt.

Rag carpeting, 1st premium to E. K. Carrier, "A very nice article;" 2d to Mrs. M. E. Palmer.

Committee recommend discretionary premiums to David Felt for a piece of plaid for dresses, A. Collins for 13 yards satinet.

Judges.—Warner Lake, Mrs. L. G. Buckingham, Mrs. Rhoda Stiles.

HOSIERY.

Woolen knit stockings, 1st premium to Mrs. Huldah Decker, 2d to Mrs. Huldah Decker.

Committee recommend discretionary premiums to Mrs. J. L. Gage for woolen stocking yarn. "Good article." Mrs. James Forton, for white worsted stockings. Best stockings exhibited, but no premium offered for worsted hosiery. Miss Martha Forton, for worsted mittens. Same remark as the foregoing. Miss Esther Forton, for worsted socks. Same remark as the foregoing.

Judges.—A. T. Crosman, Mrs. M'Alester, Mrs. Hazelton.

ORNAMENTAL NEEDLEWORK.

Ottoman covers, 1st premium to Miss Emily Tracy, 2d to Miss O. E. Lake.

Table covers. 1st premium to Jonathan Cudney.

Worked portfolios, 1st premium to Manson Perry.

Worked collars, 1st premium to Miss Sophia Pierson.

Worked quilts, 1st premium to Jonathan Cudney, 2d to Mrs. D. S. Williams.

White quilts, 1st premium to H. G. Conger.

Lamp mats, 1st " to Manson Perry.

The committee notice other articles in this class, as follows:

Crochet toilet cover, by Miss Martha Drake. Best crochet work, but no premium offered.

Filet watch pocket, by Miss Martha Drake. No premium offered, but deserving of one.

Double carpeting coverlet, by Mrs. A. C. Moore. Best, and very good, but no premium offered.

Bead purse, by Mrs. A. C. Moore. Very good, but no premium offered.

Embroidered undersleeves, by Miss Sophia Pierson. Good, but no premium offered.

Embroidered linen handkerchief, by Miss Sophia Pierson. Very good, but no premium offered.

Worked handkerchief, by Miss M. Donaldson. Not on list, but worthy of a premium.

Worked skirt, by Miss M. Donaldson. Best, and very good, but no premium offered.

Coverlet, by Mrs. A. G. Smith. Second best and good, but no premium offered.

Judges.—William Stevenson, Miss Ellen Pratt, Mrs. C. N. Beecher.

FANCY WORK, EXCEPT NEEDLEWORK.

Best and largest collection of artificial flowers, premium to Miss Sarah Ottaway.

Oil paintings, 1st premium to C. F. Brooker.

Water color paintings, 1st premium to C. F. Brooker.

Cattle drawing, 1st premium to C. F. Brooker.

The committee recommend to favorable notice and a discretionary premium, Architectural Drawing (281) exhibited by N. A. Judd.

They also recommend to favorable notice and a discretionary premium of one dollar, a Crayon Picture (354) exhibited by Miss H. Johnson.

Judges.—C. K. Williams, Mrs. I. Schram, Mrs. A. Collins.

FLOWERS.

Best and greatest variety of dahlias, premium to W. L. McGlinchey.

Judges.—J. N. Lake, Mrs. F. H. Rankin.

FRUIT.

Winter apples, correctly named, 1st premium to E. D. Farnum, 2d to George Crocker, 3d to S. D. Halsey.

Assortment of pears, correctly named, 1st premium to G. S. Hopkins.

Single variety of pears, 1st premium to C. W. Stewart.

Quinces, 1st premium to B. P. Foster.

Water melons, 1st premium to J. B. Hamilton.

Committee recommend discretionary premiums as follows:

To Matthew Beahan for (183) basket 20 oz. pippins. Six varieties of winter apples not named. Discretionary premium 50 cents.

To Enos Miller for (209) single variety of table apple. Fine specimens of Belmont—not table apple. Discretionary premium 50 cents.

To Norman Cone for (250) winter apples. Good lot of winter apples—not named. Committee recommend a discretionary premium of 50 cents.

To B. P. Foster for (332) lot winter apples. Good lot—not correctly named. Discretionary premium of 50 cents.

To Corydon Cronk for (374) lot winter apples. Not all correctly named. Discretionary premium 50 cents.

To D. S. Williams for (382) three varieties table apples. Not named —might be table apples next spring. Discretionary premium 50 cts.

Good specimens of pears—the Louisa bonne de Jersey and Pass Colmer, accompanying lot 225, were not entered.

A plate of fine specimens of Detroit Black Apple, with another of Russets, not entered—worthy of notice.

Your committee found their labors very much increased from the great neglect and incorrectness in naming.

Several fine lots lost a regular premium from this circumstance alone.

The advantage of great attention to nomenclature cannot be too strongly urged; indeed, it is absolutely necessary, before a correct list of desirable fruits can be recommended.

Judges.—Daniel Clarke, J. W. Armstrong, D. Preston.

VEGETABLES.

Celery, 1st premium to Stephen Beasley, 2d to J. B. Walker.

White table turnips, 1st premium to Enos Miller.

Beets, 1st premium to J. D. Morehouse, 2d to E. Drake, also to J. W. King.

Carrots, 1st premium to L. Phillips, 2d to Charles Rankin.

Onions, 1st premium to J. W. King, 2d to L. E. Curtis.

Cabbage, 1st premium to C. H. Summers, 2d to Benjamin Pierson, also to J. B. Walker.

Tomatoes, 1st premium to William Knowles.

Beans, premium to S. D. Halsey.

Squashes, 1st premium to T. V. Rogers, 2d to Benjamin Pierson, 3d to Charles Rankin.

Pumpkin, premium to W. L. McGlinchey.

Table potatoes, premium to Solomon Stone.

Committee also recommend discretionary premiums as follows:

J. L. Gage, for radishes.

H. W. Wood, for a peck Mexican potatoes.

W. L. McGlinchey, for egg plants.

A cauliflower, not entered.

W. L. McGlinchey, for rhubarb.

Peter Slader, for 12 beets.

Matthew Beahan, for half a bushel Shanghai potatoes.

Charles Rankin, for 6 kohl rabi.

J. W. King, for kohl rabi.

T. G. Cook, for a pumpkin.

L. Phillips, for 3 heads cabbage.

Howland Brown, for a cucumber.

William Knowles, for 3 heads cabbage.

J. D. Morehouse, for half a bushel potatoes.

C. C. Pierson, for a peck potatoes, (369.)

C. C. Pierson, for a peck potatoes, (370.)

Stephen Beasley, for 6 rutabagas.

Judges.—James Forton, Henry Schram.

SAMPLES OF FIELD CROPS.

Winter wheat, 1st premium to D. H. Seeley for a bushel Soules wheat, 2d to Wm. Slafter for a bushel Soules wheat.

Bushel of corn, 1st premium to George Andrews, for Canada corn.

Twelve ears seed corn, 1st premium to A. Babcock, 2d to Wm. Slafter.

Oats, 1st premium to B. P. Foster for a bushel Poland oats, 2d to Wm. Slafter, for a bushel Poland oats.

The committee notice other samples as follows:

D. H. Seeley, bushel blue stem wheat. We recommend this.

Mrs. D. Watson, Egyptian corn. Recommend discretionary premium.

Wm. Slafter, 12 ears seed corn, Ohio dent. We recommend this as the best sample of Ohio corn.

Wm. Knowles, bushel tucket corn. Good sample.

" " rice " "

J. W. Armstrong, sample Baden corn. "

Judges.—Silas Pierce, Dennis Wolverton, A. Babcock.

MISCELLANEOUS ARTICLES.

Carriage harness, premium to R. L. Sheldon. A first rate article.

Wagon harness for farm, premium to Ward Gazlay.

Churns, premium to David Miller.

Bee hives, premium to Howland Brown. A good contrivance to keep out millers.

Buckskin mittens, premium to David Mather.

Buckskin gloves, " " very good.

The committee also notice the following entries:

H. B. Goodenow, melodeon, 2 sets reeds. Best. Recommended as worthy of consideration.

H. B. Goodenow, melodeon, 5 octaves. A good article.

George Andrews, apple paring machine. An ingenious invention. Recommended to notice.

George Andrews, specimen of marl lime. Recommended for a discretionary premium.

George Andrews, bottle of catsup. Discretionary premium recommended.

George Andrews, sample chain pump. On a tree; committee could not examine it.

Miles Gazla, a saddle. A fair article.

W. C. Pratt, single harness. Premium recommended; a nice handsome article.

Mrs. A. G. Smith, lot of Canary birds. A good collection.

F. H. Thompson, sofa, (not made in county.) Good article; recommended to notice.

F. H. Thompson, easy chair; same recommendation.

" rocking chair, "

" set mahogany chairs, "

" bureau, "

Daniel Curtis, farm harness. A good article.

Mrs. M. L. Higgins, box of shells. A nice collection; premium recommended.

C. F. Brooker, specimens of graining. Very well executed; a premium recommended.

O. Stevens, tree climbers. Streets full of tree climbers.

F. H. Thompson, book rack, (not made in county.) Recommended to notice.

Judges.—Levi Walker, E. G. Gale, Joseph Thompson.

PLOWS AND PLOWING.

Breaking up plows, 1st premium to Albertus Crapser, 2d to E. Rockafellow.

Plows for single team, 1st premium to Thomas Warren, 2d to E. Rockafellow.

Plowing match with horses, 1st premium to A. Babcock, 2d to Albertus Crapser.

Judges.—Benjamin Boomer, Horace Bristol, Lysander Phillips.

The following sums were ordered to be paid as discretionary premiums, under the recommendations of the viewing committees:

To A. B. Donaldson, for blood mare, "Fanny Booker,"	$1 00
To Perry Hunt, for a fanning mill,	1 00
To David Felt, for plaid for dresses,	50
To A. Collins, for satinet,	50
To Mrs. James Forton, for white worsted stockings,	50
To Miss Martha Forton, for worsted mittens,	50
To Miss Esther Forton, for worsted socks,	50
To Mrs. J. L. Gage, for woolen stocking yarn,	50
To Miss Martha Drake, for crochet toilet cover,	25
" " filet watch pocket,	25
To Mrs. A. C. Moore, for double carpeting coverlet,	75
" " bead purse,	25
To Miss Sophia Pierson, for embroidered undersleeves,	50
" " " handkerchief,	50
To Miss M. Donaldson, for worked handkerchief,	50
" " " skirt,	50
To Mrs. A. G. Smith, for coverlet,	50
To N. A. Judd, for architectural drawing,	50
To Miss H. Johnson, for crayon picture,	1 00
To Mathew Beahan, for winter apples,	50
To Enos Miller, for Belmont apples,	25
To Norman Cone, for winter apples,	50
To B. P. Foster, winter apples,	50
To Corydon Cronk, for winter apples,	50
To D. S. Williams, for table apples,	50
To J. L. Gage, for radishes,	25
To H. W. Wood, for Mexican potatoes,	25
To W. L. McGlinchy, for rhubarb,	25
To Peter Slader, for beets,	25

To Mathew Beahan, for potatoes,	$0 25
To C. J. Rankin, for kohl rabi,	25
To J. W. King, "	25
To L. Phillips, for cabbages,	25
To Wm. Knowles, for cabbages,	25
To Stephen Beasley, for ruta bagas,	25
To Mrs. D. Watson, for Egyptian corn,	25
To William Knowles, for rice corn,	25
To J. W. Armstrong, for Baden corn,	25
To George Andrews, for marl lime,	25
" catsup,	25
To Miles Gazlay, for a saddle,	50
To W. C. Pratt, for a single harness,	50
To Mrs. A. G. Smith, for canary birds,	25
To Daniel Curtis, for a farm harness,	50
To Mrs. M. L. Higgins, for a box of shells,	25
To C. F. Brooker, for specimens of graining,	50

There was only one farm entered this year for competition, and the viewing committee on farms not having made any report to the Executive Committee, no premium has been awarded.

The Society was fortunate in the acceptance, by Hon. J. G. Sutherland, of Saginaw, of the invitation of the Committee to deliver the Annual Address. The members assembled at the Fair, manifested their appreciation of the merits of the address, by a unanimous vote of thanks, accompanied by a request for a copy for publication. The address was published accordingly, and a copy is herewith transmitted.

In respect to the general condition of the agriculture of the county, your committee have satisfaction in reporting a steady annual improvement. More land has been brought under cultivation, and on the older farms a better system of tillage is pursued than formerly, resulting in greatly increased advantage to the farmer. Thorough drainage is attracting considerable attention; and wherever it has been needed and fairly tried, has proved amply remunerative of the cost and trouble, almost from the start. The best or most approved farming implements are sought after and applied; and several reaping and mowing machines have been introduced into the county for the first time, during the past year.

Of the improvement in farm stock, we have already spoken. No attendant of our fairs can have failed to notice the striking superiority of our last exhibition, in this respect.

In the early part of the season, and indeed up to the time of harvesting, great alarm was felt for the wheat crop, owing to the depredations of the Hessian fly. Every field was infected, and perhaps not a stalk could be found entirely free from the insects, while upon some they could be counted by dozens. That their operations lessened the yield of the crop, cannot be doubted; but the damage proved not nearly so great as was at one time feared. This, perhaps, was mainly owing to the season having been very favorable to vigorous vegetation, which enabled the plant to outgrow the injury of its enemy. Under different circumstances of weather, the loss from this source of damage might have been much more serious.

Just after harvesting had commenced, the State was visited with copious rains, which caught a large portion of the wheat crop in the fields. From this cause, in common with the rest of the State, Genesee county suffered considerably by the grain growing in the ear, but not to so great an extent as many other sections. Notwithstanding these two serious drawbacks, those competent to judge, consider the wheat crop of this county at the last harvest, a full average; while the yield of most other crops was largely over the average. Potatoes were unusually productive, and uncommonly good in quality; as, indeed, were all kinds of root crops.

Your Committee received at various times, from the Patent Office at Washington, packages of garden and farm seeds, imported from abroad, which they distributed for experiment as opportunity offered. Many of those seeds do not seem to be suited to this climate; but others, no doubt, will prove valuable acquisitions. It is not yet in the power of the Committee to report definitely upon the value of the imported seed of field crops; but a variety of them have been placed in different careful hands, who will give each a fair trial, and it is expected will report the results for the general benefit.

The bountiful harvest of the past season, conjoined with the very remunerative prices which all kinds of produce have commanded—as high (and in some instances higher) at the farmer's own door as they would have been at a distant mart, thus saving to the producer the

heavy expense of transportation—while stimulating to redoubled effort and new enterprise, have demonstrated beyond a peradventure, that whatever may be the capacities or attractions of other sections, Genesee county is second to none in the advantages which she offers to the practical agriculturist, seeking a combined investment of capital and labor.

A glance at our "prices current" might suffice to satisfy the most incredulous, without any assurance of the fact but too well known to those unfortunates who are compelled to buy, that it is often difficult, and would sometimes be impossible to obtain, at any price, such staple articles of agricultural produce as butter, cheese, &c., but for importations from abroad.

That such an anomaly should exist in the midst of a well cultivated district of surpassing fertility, is the fault neither of our soil nor of our farmers, but is to be attributed to the home market, created by the successful enterprise of those engaged in developing the exhaustless riches of our pine forests; this section possessing in an eminent degree that happy combination of resources which, while it fixes the destiny of Michigan high in the rank of material prosperity among her sister States, gives a stimulus to every enterprise, and by the reciprocal action of one interest upon another, debars in a great measure the danger of over production in any.

Such being, then, their present and prospective prosperity, it well behooves the farmers of Genesee to consult wisely for the permanency of an interest which can only suffer from their own mismanagement or neglect, that they may transmit through their children's children to remotest posterity, the rich heritage which they now enjoy. For a practical illustration of the reasonableness of such a caution, they need but glance at the exhausted but once fertile fields of the Old Dominion, with the assurance, since like causes produce like results, constant draft with no returns, upon a bank of limited resources, whether discounting specie or the phosphates and other chemical elements of grain, must ultimately and inevitably end in bankruptcy.

A hint may suffice for those who reflect; an elaborate dissertation would not profit those who do not. The farmer will find in the study of the science and practice of agriculture, enough of exercise, physical, intellectual and moral, to develop the perfect man, and through that development become an humble instrument, under Providence, to aid in

bringing that millenial age of universal peace and happiness, long dreamed of by the poets, foretold by the prophets, and promised by God himself.

All of which is respectfully submitted.

For the Executive Committee,

F. H. RANKIN,

Secretary.

Flint, December 31, 1855.

ADDRESS

DELIVERED BY HON. J. G. SUTHERLAND, AT THE SIXTH ANNUAL FAIR OF THE GENESEE COUNTY AGRICULTURAL SOCIETY, AT FLINT, OCTOBER 11, 1855.

I have gladly accepted the invitation of your committee to address you on this occasion; but without any expectation of teaching any farmer the art or science of husbandry in its practical details, or the artizan any novelty in his vocation. I shall only hope to interest you for a few moments by some observations upon the importance and general relations of agriculture, and the true course to success in the pursuit.

Early in the history of the world it became a fixed necessity that man should supply his wants by labor—that in a considerable degree he should even owe the distinctive qualities of his own mental and moral being, and the aliment, intellectual and material, upon which he subsists, to his voluntary exertions. It is needless, in this place, to speculate in regard to what would otherwise have been his condition, or his mode of subsistence. It is obvious that from the first generation he has been in fact, and by divine appointment, a laborer.

The injunction to labor is not only written in the Book of Books, and thus rendered obligatory on account of a very ancient transaction, but it is legibly inscribed upon the human system, that whoever consults his own nature, and regards the laws by which the health of his body and the vigor of his mind are promoted, will be admonished that labor is of perpetual obligation.

The body is but a tissue of working energies; and the human intel-

lect is only rendered palpable to the material world, by its propulsion of working organs. Labor is important as the natural and necessary means to a perfect organization. Beyond a healthy natural constitution, nothing else is requisite. Give the body sufficient activity—employ the head and heart in exercises worthy of a God-given existence, and the proper development will follow. Imagine such a model being—a nature's nobleman—thus trained, developed, matured—he stands erect, as if in the consciousness of strength and rectitude—there is such a grace, dignity and ease in his movements, that you forget the ordinary obstacles that hinder and mar the beauty of mechanical motion. You take his cordial hand, and are impressed that he lives, but that his pulse throbs with no unnatural vehemence—only with genuine animation; that no counterfeit pleasure lights up that cheerful countenance, but that there is the glow of habitual gladness, the smile of health and contentment. Labor gives this strength and grace of body as well as this cheerfulness and vigor of mind. Thus is acquired the true dignity of manhood. These are the legitimate fruits of labor; the means of attaining to rational life. And however averse a man may be to this mode of developing and employing his mental and physical energies, and however wanting he may be in a proper appreciation of the pleasure to be enjoyed in the maturity of his faculties, they will not be idle. Their possessor may be effeminate, and rendered so by meager exercise. Yet he can never withdraw entirely from the arena of active life—and hold his sleepless powers wholly in check. We might as well attempt to becalm a ship at mid-ocean, when tossed by the fury of the most fearful tempest, as to still to perfect quiescence the tumult of human desires; or to coerce the fertile mind to perfect repose and inactivity. These energies may be governed and directed, but not suspended. The most severe labor would be to cease to labor. Attempt to bring the mind and body to complete rest, even by suspending the voluntary functions; to stop all action, all thought; impossible! Hence how obviously adapted to effect the great purposes of life, to fulfill the Adamic allotment to labor, is man's mental and physical constitution. Since, then, he must labor, (and this is his only means of attaining to a rational existence, and of securing the highest capacity for enjoyment,) it only remains for him to choose that kind which is best suited to his case—

that kind that will best afford the essential degree of manual exercise, and best accord with his taste and capacity.

Can a better choice be made than to cultivate the earth—to adopt the mode of life, the exercise of mind and muscle, and the general round of business, incident to the conduct of a farm and the practice of agriculture? As farmers, you have chosen that employment that conduces by the legitimate pursuit, more to perfect the man, to school the animal to proper subordination to the divinity of his higher nature, than any other profession or calling; and therefore you have chosen wisely. You may claim for your vocation a high antiquity; and you may claim for it a holy mission, that of feeding the hungry, and clothing the naked. To say that it is useful—that it is indispensable—that were the tillage of the earth to be abandoned, society must relapse into barbarism, adopt the wandering life of the savage, and still suffer from inevitable famine, would be to utter a truism that none can doubt. Such an event is not to be anticipated, until man shall cease to eat bread, or need that wherewithal to be clothed. Let him who doubts the utility of agriculture, live independently of it if he can.

The moral tendency, the effect of country life, of seclusion from the busy scenes of trade, the din and bustle of commercial pursuits, and the sordidness they engender, and lastly, but not least, separation from the blandishments of fashionable living, are worthy of particular remark.

Agriculture is peculiarly a country pursuit, or in the more refined phraseology of the moderns, a *rural occupation*, and requires steady and patient industry, in comparative solitude in the *rural districts*. By this change of terms, the votary of agriculture secures a business that is not so country-like as that of the *farmer* formerly, but still so far removed from the contagion of city civilization, that he may happily escape, if he will, the vices and temptations that abound in populous places. During the season of field labor, rising before the dawn, he witnesses the sublime spectacle, only imagined by the denizens of a city, of night fading into day, on the approach of the great source of light and heat. But so accustomed is he to all the visible and interesting phenomena of nature, that he may be surprised to hear that to witness a sunrise is one of his peculiar felicities, or that so trifling a thing as a fragile flower, the innocence of the lamb, the pa-

tience of the ox, and other domestic animals, subjected to restraint, and obliged to obey his will, to contribute to his support, to minister to his comfort, can, as his companions, have any influence over the temper of his mind; but when withdrawn from these and other like familiar objects, he will feel that there is wanting some element of his happiness; that there has been some change in the delights of home, or field or forest, though he may not distinctly perceive what is absent. He enjoys the freshness and buoyancy of a pure country air, uncontaminated by the noisome breath that pervades the town where great masses congregate.

"All nature laughs, the groves are fresh and fair,
The sun's mild lustre warms the vital air."

Early at his labor he employs his willing hands; and here, alone with himself and his thoughts, he may open his ear and his heart to the melody of the forest songsters, and feel the cheerfulness of smiling nature.

"There all around the gentlest breezes stray,
There gentle music melts on every spray;
Creation's mildest charms are there combined."

No condition can be better adapted to develop the moral sentiments, and dispose the heart to the love of nature, and nature's God, who sends rain on the just and the unjust, and gives seed time and harvest, with unfailing uniformity.

Though man is a social being, and designed to associate with others of his species, and to sustain divers relations to them; yet he needs to cultivate a near acquaintance with the individual he recognizes by his own name; to learn to respect him for good reasons, and to condemn him when he deserves censure. If he resides in a populous town, he will be in danger of making other acquaintances, and of neglecting this one. He will then be most likely to consult the passions that lie on the surface, and most easily express themselves to him, while the moral sentiments that lie in the deeper recesses of his nature, enfeebled by want of encouragement and exercise, will hold no steady communication with him. It is thus that a man coming in contact with all shades and phases of human character, and that artificial state of society that there exists, is tempted to sacrifice his individuality, and suffer himself to float on in the general current, whithersoever it may conduct him.

It is true that it is not impossible, as is shown by many noble examples, to live in a city, and pursue an honorable calling with commendable zeal, without lapsing into or being engrossed by sordid pursuits and gains, or sinking into enervating habits, or losing all moral restraints in the indulgence of sensual appetites. But in the cultivation of natural tastes, in delightful converse with nature, and with society in its simpler but not less refined state; in participating in the variety of operations incident to the management of a farm, the mind and heart will be more deeply and profitably interested. The goodness of the Creator is significantly manifested in rendering that business in which the larger portion of the human family will be engaged, so attractive, that it shall engross the affections, interest the heart, while it requires the activity of the head and the hand.

The importance of agriculture is not to be measured by the meagre knowledge that has sufficed to enable the untaught to deposit seed in the earth, recognize and cherish the young plant, and pluck the fruit at maturity. This is an indulgence of ignorance in favor of life, and it requires like charity to call it farming.

The science considered with reference to the variety and amount of knowledge and talent that may be profitably employed, covers a vast field. Each operator, to be master of his business, must, among other qualifications, possess a knowledge of the principles, as well as the process of making soils, by changing their ingredients to increase their fertility; the power in like manner to alter their adaptations to produce any given grain or vegetable, without respect to the bias of native productiveness. He needs the faculty to read the language of the native soils—to analyse them, and thus to ascertain their elementary components, and their consequent qualities and adaptations, without recourse to mere traditionary hints, or to the vague indications supposed to exist in the timber and shrubbery that encumber the ground in the wild state; or to the preponderance of pure earths, which have no productive quality until mixed with vegetable or animal remains.

It is not my intention to epitomise the science, or even to indicate in general terms the particulars of that education which is necessary to make a scientific farmer. That would be impracticable in a single address. The bare mention of some of the subjects having a direct and important bearing upon operative husbandry, will sufficiently indicate

the length and breadth of the undertaking, to compass which is the mission—the life purpose of the genuine lover of agriculture. I will, however, only mention those subjects that science embraces and gives light upon; that study and practice will not only enable you to compass but acquire. I shall therefore not insist upon common sense; for that is not learned at the schools, at the fireside, or in the field. It is a permanent staple of the country. But if one among you be unluckily born without it—pity him—he is not a farmer. He has no bent for this sensible pursuit. Train him for another occupation; place him in another sphere, where a knowledge of the books, of other men's thoughts and common sense will answer the exigencies of his business, but don't encourage him to cultivate the earth, for he would only waste his sweetness on a desert air.

In calling your attention to the subjects that are worthy of early and continued study, I will not, I hope, be accused of disparaging the labors of such men as have prosecuted the business by the light of experience; and, without the knowledge of first principles, in the abstract, have arrived at the same general conclusions, that the more learned have formed by the process of reasoning from cause to effect.

When the premises, in their natural condition, are pointed out where the future operations of the pioneer farmer are to be conducted, he sees it covered with timber and useless shrubbery, which have to be removed. How can that be done with the greatest economy? There may be valuable timber—which is it? By what criteria shall it be known, and for what purposes is it valuable? Will it be more valuable, or less so, by lapse of time? These questions are practical, and must be answered. If answered incorrectly, great losses may ensue. Any laborer may inform him *how* to remove the timber; and he is himself advised on this subject, whether he has been trained to agriculture or not; for he knows that an axe, wielded by the strong arm, will soon prostrate, and fire consume it. But he would know when the axe should be applied, and when the fire, and how the axe can be applied so as to facilitate the burning. These questions can be well answered by experience, but in deciding when to cut timber, that the vegetable life may not survive and sprout again, science may aid experience. The considerations which regard the value of the timber, and indeed, of any of the original products of the earth, or those which arise as the fruits

of tillage, are questions of economy and require more knowledge, sagacity and foresight; the proximity of present and prospective improvements affecting the demand and market; the circumstances that influence the permanence of that demand; the probability of abundant and permanent supply. And will it not be worth his while to study the same subject, that he may also wisely calculate how he may best supply himself with those numerous articles necessary to him, which he never expects to grow or manufacture?

Having answered the questions which arise in clearing the ground, and having made an opening where the earth may be turned out of its ancient bed, he naturally enquires what products he can raise most abundantly, what grains and vegetables will be most useful to him for his own domestic consumption and for the animals he feeds, and most valuable to dispose of in market. Then the *modus operandi* of producing them, including the time and necessary implements, must engage his attention.

There is a multitude of subjects connected with stock raising and the improvement and management of this species of property, that have some share in his thoughts.

Notwithstanding, however, that there is such a multitude of subjects that the farmer must master by experience or otherwise, and so much and such variety of talent and science may be profitably employed, yet there is not, as in other departments of industry, any division of labor. A farm is not like a workshop where a multitude of men may be employed simultaneously in manufactures—where several articles or pieces of mechanism, in different stages of the process of manufacture, may pass through many hands, each man performing some new operation of which no other has a practical knowledge. One man, in your calling, cannot be exclusively engaged in clearing new land; another, in fencing and dividing it into fields; another, gauging the soils and deciding what productions can best be grown on particular localities; another, in preparing the ground to receive the seed; and still another and an additional man for each successive performance. This would be impracticable. But if there were such a division of labor as is made in mechanics, a more minute division than that indicated in the preceding remarks would be witnessed. If that were practicable, it would not be desirable. It would diminish the independence of the farmer, and the

domesticity of his arrangements. Each one is therefore required, as a necessary consequence, to possess a greater amount of information—to have a more expensive preparation—to discharge a greater range of duties—to live under more responsibilities.

The ignorant man may gain a subsistence—the half educated thrive—the learned, live, prosper, and diffuse in a wider circle the blessings of knowledge and plenty. Whoever acts well his part and does credit to his calling, will add something to the world's stock of knowledge, by his reading, reflection and experience. And thus agriculture may ultimately attain to the distinction of being one of the learned professions. Then it will cease to be the burlesque of farming, that its own votaries consent to the misnomer that denies that the intellect has any participation in a laborer's services. A soldier has companions in arms, the patriot a coadjutor, the author a cotemporary, the statesman a compeer, the professional man a colleague, the mechanic a journeyman; even a criminal has a *particeps criminis* or accomplice, but a farmer dignifies his laborer and companion by a suggestive appellation, and calls him a *hand*, as if a "hand" expressed all that was useful or requisite in his rural occupation.

"But the man's a man for a' that." The individual that calls himself or submits to be called a hand, dishonors his head, dethrones reason, and sets up in its place that in which is the seat of neither physical or intellectual vitality. That organ, though useful, does not deserve the distinction of representing the man. By rejecting such improprieties of speech, something may be done to at least reclaim the calling from an indignity that does not belong to any industrial pursuit—an odium that never can deservedly attach to honorable and useful toil.

To the husbandman, *economy* is a word of grave import. His success cannot be more certainly promoted than by due attention to its dictates. Mr. Webster says that economy signifies "a frugal and judicious use of money—a prudent management of all the means by which property is saved or accumulated—a judicious application of time, of labor, and of the instruments of labor."

This prudence becomes not only the farmer, but every business man. It is, however, particularly important to the husbandman. It is for him the key to unlock the treasures of the earth—the talisman of his success. It is the Midas that shall turn to gold everything it touches. How completely it points out the essentials, and indicates the saving,

reflecting and progressive operator, as if it were a word coined expressly to describe some thrifty farmer. Have you not witnessed in your own experience, how the suggestions of prudence could have saved you from losses—put money in your purses—while a neglect of its teachings renders the season unproductive, the soil barren, and the barn and pocket empty?

Economy suggests to the farmer, and admonishes him to ever bear in mind, as he doubtless does, that the earth that gives so largely in return for what it receives, may become impoverished; that it may be so reduced in its productive properties, that it will not reward his toil by productions of any kind, in sufficient abundance to remunerate him. He knows that he might as well attempt to extort labor from the skeletons of his oxen after life is extinct, as to raise wheat from pure clay, or corn from mere sand. It has been often stated, and the repetition cannot be too frequent until the hint is suitably improved, that the soil to produce well must be well fed—that it will not long endure the drainage of its fructifying qualities to which it is subjected when yearly cultivated, unless some means are employed to replenish the vital principles. How is this to be done with least labor and cost, and most effectually? Economy inquires, what is the element that was drawn out and exhausted by the last abundant harvest? What manure will supply it in the greatest quantities, without introducing unnecessary or deleterious properties? Such practical questions it behooves every intelligent and prudent farmer to be able to answer. He would not be tempted to get labor from his laborer, even him he calls a hand, without feeding him, and shall he expect his farm to serve him and yield well unless he keeps that fat.

There is under the best management of a farm now and then a failure—here and there a loss. Some expected crop may be cut off, or some scheme miscarry, yet these are the accidents from which no calling is exempt—no foresight can provide against them, or any amount of prudence avail to ward them off.

"Yes—for the smoothest lake hath waves
  Within its bosom, which will rise
And revel when the tempest raves;
  The cloud will come o'er gentlest skies:
And not a favored spot on earth
  The furrowing plowman finds, but there
The rank and ready weeds have birth,
  Sown by the winds to mock his care."

There is, however, a great misapplication of time and labor, that may be corrected. The recent improvements in the implements of husbandry have effected a decided saving, and much more may, and undoubtedly will be done in the same manner. But it is not to be expected that when inventions have reached the utmost limit of their ability, and when their perfection shall have equalled the most sanguine hopes of their authors, they will be so useful as to excuse the farmer altogether from working and thinking. Labor will still be just as necessary, just as desirable, but so facilitated that what required days and weeks to accomplish, becomes but the work of a few moments. In short, the difference now observable between the velocity of stage traveling and railroad flight, of mail arrangements for the transmission of intelligence and telegraphing, will be realized in the improved husbandry that "in the fullness of time" is to take the place of the imperfect methods now in the van of agricultural civilization. Not that hotbeds of novel construction, and new notions not now dreamed of, are to relieve us of the necessity of patronizing old earth, for we shall hardly be able to dispense with her offices, her fruits, her tillage; and we shall without doubt be obliged to indulge her in her old ways, and cannot accelerate her process of production. Yet there are some inventions that are somewhat prophetic. For instance, some philosophical Paul Pry, an enemy of the "busy bee," that venerable example of the working virtues, has invaded the sweet precincts of her dominion, supposed to be sacred to these time honored insect laborers forever, and in defiance of rights heretofore acknowledged to be absolute and exclusive, set afloat a formula for making honey without the aid or co-operation of his insect majesty, or his bee-hive retainers. These sacrilegious aggressions must, however, have a limit.

Reflect on the increased amount of corn one man with his team and plow is able to produce, over that to which he would be limited if he had nothing to work with but his hands and a spade or hoe. If the simple invention of the plow has so enhanced the power of the farmer, and usefulness of his working animals and his farm, what may not be done by other applications of animal and even steam power. All that is wanted is the proper and practicable methods of applying the forces to make the short turns and acute angles, necessary in the management of farming utensils. The power is at hand, and why not use it? When

it can be, all the strength that a human arm can wield in a year, might easily be exerted in a day. To this end, how desirable is a smooth, stumpless farm. The exigence requiring the stumps to be dug or drawn out, will tend to augment the value of the farm by the additional beauty that will thus be given to it. It is the obvious interest and duty of the farmer to encourage by impartial tests, and liberal patronage, that spirit of improvement and invention that promises so much for the advancement of your calling in dignity, profit and usefulness.

Another suggestion of economy not less important than these to which I have adverted, but transcendently more momentous, is how the farmer can best employ himself, how he can most profitably exercise his own energies, without prematurely impairing them or contracting disease; for it is a higher economy than that involving mere gain or loss as these terms are used in commercial transactions, to give the body health and agility, and head and heart vigor and vivacity. No success in business, no worldly advantage whatever, can adequately compensate the loss sustained in the permanent derangement of the bodily organs, or in the stooping infirmities by which are sacrificed the nobleness of man's natural attitude, the princely bearing that the Creator intended should distinguish him from animals of a lower order, and "creeping things."

There is a commendable self-love; we naturally love ourselves, and it is proper we should do so to a certain extent. We must provide for ourselves. If afflicted we suffer the pain; if poor we are they that have poverty; if unhappy we suffer discomfort. If repulsive morally or physically we cannot escape from ourselves, and it therefore becomes our interest to render ourselves as agreeable to ourselves as possible. Hence it naturally occurs that a man feels a degree of satisfaction when he can possess a valuable thing which he can appropriate to himself and emphatically call his own, without being subject to challenge by another having equal pretensions. This satisfaction springs up instinctively in the human bosom, like parental affection in the maternal heart, and subsists almost as independently of the comparative merits of its object. It results from the exercise of the moral attributes, and rises to its height where we witness a prominence of those intellectual faculties which evince the most decided individuality. For whatever be the constitution of mind, if it exhibit any characteristic traits, it will at the

same time develop a faculty of corresponding power to derive pleasure from the separate possession of any mental, moral or material good. He cannot appropriate another's gold without guilt, nor his virtues by any means. He attaches to any appliances that may contribute to his welfare, a value, and when he obtains possession of such auxiliaries, he would as assiduously exclude all others from their enjoyment, except by his consent, as he diligently labored to acquire them. And this laudable self-love is that which dictates a discharge of individual obligations as a virtue that brings its sure reward—that dictates the assumption of personal rights for the benefits that accrue from their enjoyment; that separates the good man by his voluntary act, from the bad; that raises the intellectual man by the buoyancy of his genius, above the dolt; that divides the successful business man, by the laws of demand and supply, from the beggar. The same self-respect would dictate self-preservation, which the adage says is the first law of nature. It should teach every person to so exercise himself that he can longest enjoy life and its blessings. To do this a man ought not to make himself a mere working machine, only using his intellect to start and stop this piece of mechanism. But he ought to give equal attention to bringing out his mental and muscular powers.

What plan so feasible and so rational for this purpose, as that proposed by the Legislature in the act to incorporate the Agricultural School? Whoever is educated by the means and in conformity with the regulations of that act, requiring several hours of actual manual labor every day; and yet allowing an equal or greater length of time for the improvement of the mind in studying the lore of the books, is sure to be a well educated man—a strong man—vigorous in every sense of the word. Agriculture has had its laborious *past;* is having its *present* of improvement; and it will have its triumphant *future.*

HILLSDALE COUNTY.

J. C. HOLMES, ESQ., *Sec'y Mich. State Agricultural Society:*

SIR—Herewith I send you the proceedings of the Hillsdale County Agricultural Society, for the year 1855, from which you will doubtless select some portion which will be of sufficient interest for you to embody them in a more permanent form, for the benefit of our agricultural friends throughout the State; simply remarking that our Society stands high in the esteem of the citizens of the county. Our Annual Fair, held on the 11th, 12th and 13th days of October, at Hillsdale, was probably the largest and best ever held in the county. Not less than 5000 people were in attendance on the last two days of the exhibition. The Annual Address was delivered by R. F. Johnstone, Esq., Editor of the Michigan Farmer, which was listened to with delight and profit by the assembled multitude, for a long hour. The general prosperity of the county is good. Although the wheat crop has suffered severely by the fly and wet weather in securing the remainder, yet we are not without resources; spring crops were good, and lands are being better cultivated. Our farmers have learned that if they would have the soil feed them, they must feed *it* also. The result a coming up instead of a falling back.

Our Society has two permanently located Fair Grounds; one at Hillsdale and the other at Jonesville; which have each been fitted up by the citizens of the villages in which they are situated, in a very neat and substantial manner, at a cost of more than five hundred dollars each. And while we have taken a deep interest in the subject of agriculture, we have not been unmindful of another noble cause which seems to be deeply imbedded in the hearts of the whole people. I refer to our ed-

ucational interests. In no county in the State "with like population and comparatively short time in which it has been settling," can more or better district schools and school houses be found, together with three permanently established Union Schools, which fall "but little, if any," short of the best seminaries in the land. And in addition to these, we have Hillsdale College, which I hesitate not to say is one of the most beautiful structures in Michigan, and has an able body of Teachers and Professors, with over two hundred students.

These, with other advantages, both natural and artificial, that might be mentioned, render it almost certain that the day is not distant when Hillsdale shall be classed among the first counties of the State.

Yours, very respectfully,

F. M. HOLLOWAY,

Secretary.

RULES AND REGULATIONS

For the 5th Annual Fair of the Hillsdale County Agricultural Society, to be held at Hillsdale, Oct. 11th, 12th and 13th, 1855:

1. Any person wishing to enter articles for premiums, must become a member of the Society before the articles can be received.

2. Membership tickets, 50 cents. A membership ticket admits a gentleman and his wife, and children under 18 years of age.

3. Single admission tickets, 10 cents; to be handed to the gate or door keeper, and will admit a person but once.

4. No animal or animals shall be entered for premiums in more than one class, but the executive committee may award a special premium of a Diploma, which shall be considered the highest award of the Society.

5. No person acting as a judge on any class of stock or produce, or manufactured articles, shall be allowed to enter any stock, produce, or article in the class on which he is to judge.

6. All stock, manufactures, or produce intended for exhibition or competing for premiums, must be on the ground and arranged in its proper place, by 5 o'clock P. M. of the first day.

7. Cards will be furnished by the Secretary, at the business office on

the ground, for each and every article or animal entered for exhibition, designating thereon the Division, Class, and Number, of the article or animal; and the owner thereof will place the same on such article or animal, safely secured, for the benefit of the judges. The name of the owner must in no instance be added thereto, or otherwise attached to the article or animal.

8. All animals or articles owned or manufactured without the county, will be considered as foreign, and will only be awarded such premiums as shall be declared by the executive committee, excepting Class 5 of Division B.

9. All members of viewing committees will report themselves to the Secretary, at the business office, before 5 o'clock of the first day, so as to enable the executive committee to fill any vacancies in said committees, at their meeting at 6 o'clock of the same day.

Members of the viewing committees must be members of the Society.

A premium will not be awarded in any evident case of fraud in entry, or where the article or animal is not worthy, though there be no competition.

The grounds will be put into six divisions, each of which will be under the immediate supervision and control of two of the executive committee, whose duty it shall be to arrange and classify the stock or articles within their respective divisions, and to see that order is preserved and the wants of exhibitors properly cared for.

Conductors will be in readiness on the first day to assist in conducting stock or articles to their proper divisions, as they enter the fair grounds.

The executive committee and viewing committees will hold a meeting at the public stand on the fair ground, at 9 A. M. of the 2d day, at which time the viewing committees will receive their books, and enter upon their duties immediately.

The plowing match will be attended at 3 P. M. of the 2d day.

The viewing committees will make their reports to the Secretary, by 6 P. M. of the 2d day, being careful to return with the same any special statements they may have received from the exhibitor.

The annual address will be delivered by R. F. Johnstone, Esq., editor of the Michigan Farmer, from the public stand, at 10 A. M. of the 3d day.

The reports of the judges will be read from the public stand immediately after the address.

Music will be in attendance to enliven the exercises from time to time.

Hay will be furnished by the Society for all animals exhibited.

A good and sufficient watch will be at all times on the ground to prevent any articles from being stolen.

By order of the executive committee.

LEWIS EMERY,
Chairman.

F. M. HOLLOWAY, *Secretary.*

LIST OF PREMIUMS

Awarded at the Fifth Annual Fair of the Hillsdale County Agricultural Society, held at Hillsdale, Oct. 11th, 12th and 13th, 1855:

DIVISION A.—CATTLE.

CLASS I.—DURHAMS.

Bull 5 years old, W. T. Lyon, 1st premium, Diploma and $3 00
Bull 6 " Leman Strong, 2d premium, ... 5 00
Bull 3 " L. J. Thompson, 1st premium, Diploma and .. 2 00
Bull calf 5 months old, J. W. Dickinson, 1st premium, Youatt & Martin on Cattle and 1 00
Cow 6 years old, W. T. Lyon, 1st premium, Diploma and 2 00
Cow 4 " L. J. Thompson, 1st " " 2 00
Cow 3 " J. W. Dickinson, 2d " " 3 00
Heifer 2 years old, L. J. Thompson, 1st premium, ... Diploma.
Heifer 1 year old, J. W. Dickinson, 1st premium, Evans' Dairyman's Manual and 2 00
Heifer 1 year old, J. W. Dickinson, 2d premium, Evans' Dairyman's Manual and 1 00
Heifer calf 10 weeks old, J. W. Dickinson, 1st premium, Youatt & Martin on Cattle and 1 00
Heifer 5 months old, W. T. Lyon, 2d premium 1 00

CLASS II.—DEVONS.

Bull 5 years old, H. Huff, 1st premium, Diploma and..... $3 00
Bull 4 years old, G. Noyes, 1st premium, Diploma and..... 2 00
Bull 3 " H. Eggleston, 2d " 4 00
Bull 2 " I. Vandenberg, 1st " Diploma and..... 1 00
Bull 1 year old, J. W. Dickinson, Michigan Farmer for 1856 and 2 00
Bull 1 year old, G. Stoddard, 2d premium, Michigan Farmer for 1856 and..... 1 00
Bull calf 4 months old, H. Eggleston, 1st premium, Youatt & Martin on Cattle and..... 1 00
Cow 9 years old, O. B. Blackmar, 2d premium,..... 3 00
Cow 4 " I. Vandenberg, 2d " 3 00
Heifer 3 " H. Eggleston, 1st " Diploma and... 1 00
Heifer 2 " J. W. Dickinson, 1st " .....Diploma.
Heifer 2 " " 2d " 2 00
Heifer 1 year old, I. Vandenberg, 1st premium, Evans' Dairyman's Manual and..... 2 00
Heifer calf 3 months old, L. Miller, 1st premium, Youatt & Martin on Cattle and..... 1 00

CLASS III.—BLOOD CROSSES.

Bull 4 years old, Z. Williams, 1st premium, Diploma and..... $2 00
Bull 6 " F. Fowler, 2d premium,..... 5 00
Bull 3 " C. L. Treadwell, 1st premium, Diploma and.. 2 00
Bull 2 " W. Thompson, 2d premium,..... 3 00
Bull 1 year old, H. Truman, 2d premium, Michigan Farmer for 1856 and..... 1 00
Cow 6 years old, C. L. Treadwell, 1st premium, Diploma and. 2 00
Heifer 2 years old, J. Whittaker, 1st premium,.....Diploma.
Heifer 1 " A. B. Slocum, 1st premium, Evans' Dairyman's Manual and..... 2 00
Heifer 1 year old, J. Whittaker, 2d premium,..... 1 00
Heifer calf 6 weeks old, C. L. Treadwell, 1st premium, Youatt & Martin on Cattle and..... 1 00

CLASS IV.—CROSS BLOOD NATIVES.

Bull 4 years old, J. Fitzsimmons, 1st premium, Diploma and.. $2 00
Bull 4 " Platt & Wilson, 2d " 4 00
Bull 3 " O. B. Blackmar, 1st " Youatt & Martin on Cattle and..... 3 00
Bull 3 years old, F. Fritts, 2d premium,..... 3 00
Bull 2 " Huff & Edwards, 1st premium, Youatt & Martin on Cattle and..... 2 00
Bull 2 years old, F. A. Seymour, 2d premium,..... 2 00
Bull calf 5 months old, James White, 1st premium, Youatt & Martin on Cattle.
Bull calf 10 weeks old, 2d premium,.....Michigan Farmer for 1856.
Cow 4 years old, G. Stoddard, 1st premium, Diploma and..... 2 00
Cow 4 " Z. Williams, 2d " 4 00
Cow 4 " W. R. Montgomery, special premium by executive committee,.....Diploma.
Cow 3 years old, A. B. Slocum, 1st premium, Evans' Dairyman's Manual and..... 3 00
Cow 3 years old, A. B. Slocum, 2d premium,..... 3 00
Heifer 2 years old, F. A. Seymour, 1st premium, Evans' Dairyman's Manual and..... 2 00
Heifer 2 years old, G. Stoddard, 2d premium,..... 2 00
Heifer 1 year old, O. B. Blackmar, 1st premium, Evans' Dairyman's Manual and..... 1 00
Heifer 1 year old, W. R. Montgomery, 2d premium,..... 1 00
Heifer calf 6 months old, O. B. Blackmar, 1st premium,..... 1 00
" 5 " W. R. Montgomery, 2d premium, Michigan Farmer for 1856.

CLASS V.—NATIVES.

Cow 7 years old, O. B. Blackmar, 1st premium, Diploma and. $1 00
Cow 6 " G. Stoddard, 2d premium,..... 3 00
Heifer 2 " H. B. Chapman, 1st premium, Evans' Dairyman's Manual and..... 1 00
Heifer 2 years old, L. P. Rood, 2d premium,..... 1 00
Heifer 1 year old, A. B. Slocum, 1st premium, Evans' Dairyman's Manual and..... 1 00

Heifer 1 year old, I. Vandenberg, 2d premium, Evans' Dairyman's Manual.

Heifer calf 5 months old, L. P. Rood, ...Evans' Dairyman's Manual.

CLASS VI.—WORKING CATTLE.

Yoke oxen 7 years old, L. T. Miller, 1st premium, Diploma and $3 00
" 5 " O. Avery, 2d premium, ... 5 00
" 5 " L. P. Rood, 3d premium, ... 4 00
Yoke steers 3 years old, Marvin Aldrich, 1st premium, Diploma and 2 00
Yoke steers 4 years old, I. B. Card, 2d premium, ... 4 00
" 4 " H. B. Chapman, 3d premium, ... 3 00
" 2 " Joel Hand, 1st premium, Youatt & Martin on Cattle and 2 00
Yoke steers 2 years old, V. Barker, 2d premium, ... 2 00
" 1 year old, J. W. Dickinson, 1st premium, ... 2 00
" 1 " O. B. Blackmar, 2d " 1 00
Best 5 yoke from one town, Reading, H. H. Ferris and others, 10 00
Best trained yoke, O. Avery, Diploma and 2 00

CLASS VII.—FAT CATTLE.

Fat ox, F. Fowler, 1st premium, ... $3 00
" J. Benson, 2d premium, ... 2 00
Fat cow, L. W. Green, 1st premium, ... 3 00

Of milch cows there were but two entered, and neither of them having complied with the rules, no premiums were granted.

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DIVISION B.—HORSES.

CLASS I.—HORSES FOR ALL WORK.

Stallion 5 years old, H. C. Mallory, 1st premium, Diploma and $3 00
Stallion 6 " W. O. Hoeg, Youatt on the Horse and... 4 00
Stallion 6 " D. Rush, Hind's Farrier and 3 00
Stallion 3 " A. Ransford, Diploma and 2 00
Stallion 3 " W. C. Swift, ... 4 00
Stallion 3 " S. Orr, ... 3 00
Stallion 2 " F. Kies, Diploma and 2 00

Stallion 2 years old, J. McKercher, 2d premium, Youatt on the Horse and $3 00
Stallion 2 years old, B. A. Farmer, 3d premium, Hinds' Farrier and 2 00
Span horses, J. J. Gould, 1st premium, Diploma and 3 00
" Platt & Wilson, 2d premium, Youatt & Martin on the Horse and 4 00
Span horses, B. Fisher, 3d premium, Hinds' Stud Book and ... 3 00
Gelding 3 years old, G. W. Clark, 1st premium, Youatt on the Horse and 2 00
Gelding 3 years old, Jesse Hill, special premium, ... 2 00
" 3 " H. Packer, " 2 00
" 2 " J. Williams, " 2 00

CLASS II.—BROOD MARES AND COLTS.

Mare and colt, F. Fowler, 1st premium, Diploma and $2 00
" Thos. Smith, 2d premium, Youatt on the Horse and 3 00
Mare and colt, A. Keefer, 3d premium, Hinds' Stud Book and 2 00
Mare colt 3 years old, J. Keagle, 1st premium, Hinds' Farrier and 2 00
Mare colt 3 years old, J. Williams, 2d premium, ... 2 00
" 2 " I. B. Card, 1st premium, Youatt on the Horse and 2 00
Mare colt 2 years old, W. Glasgow, 2d premium, ... 2 00
Mare colt 1 year old, D. Murray, 1st premium, Hinds' Farrier and 1 00
Mare colt 1 year old, Geo. Kesselring, 2d premium, ... 1 00
Stud colt 1 year old, J. B. Norris, Hinds' Farrier and 1 00
" 1 " B. Bishop, 2d premium, ... 1 00
Sucking colt, W. Weaver, 1st premium, Youatt on the Horse and 1 00
Sucking colt, L. P. Rood, 2d premium, ... 1 00

CLASS III.—DRAFT HORSES.

Span dray horses, with spring dray, S. Smith, 1st premium, Diploma and $3 00

Span horses, R. J. Fuller, 2d premium, Youatt on the Horse and $4 00
Single horse, stallion, J. Gridley, 1st premium, Diploma and.. 1 00

CLASS IV.—MATCHED AND SINGLE HORSES.

Matched horses 4 years old, N. Torbin, 1st premium, Diploma and $3 00
Matched horses 4 years old, B. Franklin, 2d premium,..... 5 00
" 4 " Wm. Cutler, 3d premium,..... 4 00
Single horse, Wm. Orr, 1st premium, Diploma and..... 1 00
" B. Fisher, 2d " 4 00
" C. W. Westfall, 3d premium,..... 2 00

CLASS V.—BLOOD HORSES, HOME OR FOREIGN.

Stallion 3 years old, L. Miller, 2d premium, Youatt on the Horse and..... $4 00
Stallion 2 years old, S. Hamlin, 3d premium, Hinds' Farrier and 3 00
Stallion 3 years old, R. Meddick, special premium by executive committee,..... 4 00
Stallion 2 years old, R. Meddick, special premium by executive committee,..... 4 00

The committee very much regret that the splendid horse Green Mountain Black Hawk, owned by Messrs. Crippen & Fisk, of Coldwater, was not upon the ground earlier, and regularly entered on their books. For beauty and speed he was very much admired.

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DIVISION C.—SHEEP—SWINE.

CLASS I.—SPANISH MERINO.

Buck 3 years old, H. Huff, 1st premium, Diploma and..... $2 00
Buck 1 year old, H. Huff, 1st premium,..... 2 00
Pen 5 ewes 2 years old, H. Huff, 1st premium,..... 3 00
Pen 5 lambs, H. Huff, 1st premium,..... 3 00
[illegible]ves 3 years old, I. Vandenberg, 2d premium,..... 2 00
[illegible]n 5 ewes 1 year old, " 1st " 3 00

Buck 3 years old, J. W. Dickinson, 3d premium,..... $2 00
Buck 2 " " 2d " 3 00
Pen ewes 3 " " 3d " 1 00
Pen lambs, J. W. Dickinson, 2d premium,..... 2 00
Pen 5 ewes 3 years old, L. Strong, 1st premium,..... 3 00
Pen 5 lambs, L. J. Thompson, 3d premium,..... 1 00

CLASS II.—FRENCH MERINO.

Pen 5 ewes 2 years old, L. J. Thompson, 1st premium,..... $3 00
Buck 1 year old, L. J. Thompson, 1st premium,..... 2 00
Pen 5 lambs, " 1st " 3 00

CLASS IV.—CROSS OF BLOODS.

Eight 1 year old bucks, $\frac{3}{4}$ French, $\frac{1}{4}$ Spanish, J. Cohoon, foreign, ...Diploma.
Pen 5 ewes 2 years old, $\frac{3}{4}$ French, $\frac{1}{4}$ Spanish, A. Kies, 1st premium, ... $3 00
Pen 5 ewes 3 years old, $\frac{1}{2}$ French, $\frac{1}{2}$ Spanish, A. Kies, 2d premium, ... 2 00
Pen 5 lambs, $\frac{3}{4}$ French, $\frac{1}{4}$ Spanish, A. Kies, 1st premium,..... 3 00
Buck 3 years old, $\frac{1}{2}$ French, $\frac{1}{2}$ Spanish, L. W. Green, 1st premium, Diploma and..... 2 00
Buck 1 year old, $\frac{1}{2}$ French, $\frac{1}{2}$ Spanish, L. W. Green, 1st prem., 2 00
Buck 4 years old, E. B. Seeley, 2d premium,..... 3 00

CLASS V.—GRADES.

Buck 4 years old, H. H. Ferris, 1st premium,..... $2 00
Buck 4 years old, L. J. Thompson, 2d premium,..... 1 00
Buck 1 year old, L. P. Rood, 2d premium,..... 1 00
Pen 5 ewes 1 year old, J. W. Dickinson, 1st premium,..... 2 00
Pen 5 ewes 3 years old, S. Ralph, 1st premium,..... 3 00
Pen 5 ewes 1 year old, " 2d " 1 00

CLASS VI.—LONG AND COMMON WOOLED.

Pen 5 ewes 3 years old, long wooled, J. W. Dickinson, 1st premium, ... $2 00
Pen 5 ewes 3 years old, J. W. Dickinson, 2d premium,..... 1 00
Buck 2 years old, long wooled, J. W. Dickinson, 2d premium, 1 00

Pen lambs, long wooled, J. W. Dickinson, 1st premium, discretionary, ... Diploma.

CLASS VII.—FAT SHEEP.

Fat sheep, on grass, H. H. Ferris, 2d premium, ... $1 00

CLASS VIII.—SWINE.

Boar 1 year old, cross of Essex and Suffolk, J. W. Dickinson, 1st premium, ... $3 00

Sow 1 year old, cross of Essex and Suffolk, J. W. Dickinson, 1st premium, ... 2 00

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DIVISION D.

POULTRY.

R. L. Andrews, 1 coop black Shanghais, ... $1 00
H. E. Whipple, great variety of cross bloods, ... 1 00
L. J. Thompson, greatest variety, ... 1 00
C. W. Westfall, best coop Brahma Pootras, ... 1 00
T. T. Phillips, 2 coops " discretionary, ... 1 00
C. B. Tucker, 1 coop white Polands, ... 1 00
Chas. Gridley, 1 pair " discretionary, ... 50
L. Emery, Jr., best pair turkeys, ... 1 00
" " pea fowls, ... 1 00
H. H. Ferris, best pair Guinea fowls, ... 1 00

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DIVISION E.

CLASS I.—FARM IMPLEMENTS.

J. C. Peck, best farm wagon, ... $3 00
S. Chandler, cross and sod plow, ... 1 00
" straw cutter, ... 1 00
J. W. Edwards, cheese press, ... 1 00
B. Fisher, double harness, special, ... 1 00
P. C. Crary, 1 buggy, ... 2 00
" 1 sulky, ... 1 00

A. H. Mack, bee hive, ... $1 00
L. Rood, 6 axe helves, ... 50
H. C. Mallory, seed planter, ... 1 00
Z. Densmore, wheel cultivator, foreign, ... Diploma.
M. Willetts, gang plow, foreign, ... Diploma to maker.
J. W. Dickinson, wheel drill, special premium, ... 1 00

CLASS II.—FURNITURE.

D. W. C. Peck, 2 dressing bureaus, ... $2 00
" 2 washstands, discretionary, ... 1 00
F. J. Baker, rocking chair, ... 1 00
J. R. Smith, Melodeon, foreign, ... Diploma.

CLASS III.—DOMESTICS.

O. G. Emery, pair woolen blankets, 1st premium, ... $1 00
" " sheets, ... 50
" 10 yards woolen carpets, ... 50
Mrs. Randolph, pair cotton and wool blankets, 1st premium, ... 1 00
Mrs. D. Stone, " " 2d " ... 50
Mrs. D. Stone, cotton and wool coverlet, 1st premium, ... 2 00
Mrs. D. Stone, 11 yards satinet, 1st premium, ... 1 00
Mrs. S. Gilmore, woolen shawl, 3d premium, ... 1 00
" 1 lb. woolen yarn, 1st " 1 00
Miss Margaret Gilmore, 1 pair woolen stockings, ... 75
Misses Cleveland, 12 yards flannel, 1st premium, ... 1 50
" woolen shawl, " 3 00
" " 2d " 2 00
" 1 lb. woolen yarn, 2d " 50
" 1 pair cotton stockings, 1st premium, ... 1 00
L. Emery, Jr., 10 yards full cloth, 1st premium, ... 1 50
L. VanVleet, 20 yards rag carpet, " 1 00
" 1 pair woolen knit mittens, 2d premium, ... 25
Mrs. A. Lockwood, pieced quilt in colors, 2d " 1 00
" 2 linen table cloths, special, ... 1 00
Mrs. S. Chandler, knit bed spread, special, ... 1 00
Mrs. M. Fairfield, pieced quilt in colors, 1st premium, ... 2 00
" pair worsted stockings, 2d " 50

Mrs. John Smith, 1 rag mat, 1st premium, ... $1 00
" pair cotton stockings, 2d premium, ... 50
" pair fringed woolen mittens, ... 50
Mrs. B. Gale, 1 hearth rug, ... 50
Mrs. D. D. Gillett, pair woolen stockings, 1st premium, ... 1 00
" " " socks, " 75
Mrs. A. Goff, white worked quilt, 1st premium, ... 2 00

CLASS IV.—NEEDLEWORK, &C.

Ottoman cover, Miss L. Gale, 1st premium, ... $1 00
" Mrs. Geil, 2d premium, ... 50
Lamp mat, Mrs. E. Hollinsworth, 1st premium, ... 1 00
" Mrs. F. H. Pratt, 2d " 50
Bible mat, Mrs. S. Chandler, 1st premium, ... 1 00
Worked collars, Mrs. H. J. King, 1st premium, ... 1 00
" Mrs. Marvin, 2d " 50
Worked handkerchief, Mrs. H. H. Ferris, special, 1st premium, 1 00
" Mrs. E. H. C. Wilson, 2d " 50
Worked undersleeves, Miss F. Cressy, 1st premium, ... 1 00
" Mrs. H. J. King, 2d " 50
Embroidered skirt, Mrs. Marvin, special, 1st " 1 00
" Miss Campbell, " 2d " 50
Infant's dress, Mrs. B. Gale, special, 1st premium, ... 1 00
" Mrs. E. H. C. Wilson, special, 2d premium, ... 50
Infant's hood, Mrs. W. Waldron, special, 1st premium, ... 1 00
Toilet cushion, Mrs. H. P. Thum, " " 1 00
Embroidered shawl, Mrs. E. B. Seeley, special, 1st prem., ... 1 00
Cake tidy, Mrs. W. Waldron, special, ... 50
Stand cloth, Mrs. A. Andrews, special, ... 1 00
Shell basket, H. P. Thum, special, ... 1 00
Specimen wax-work fruit, Miss F. Cressy, 1st premium, ... 1 00
Basket " Mrs. Cook, 2d " 50
Landscape, oil paintings, Miss F. Cressy, 1st premium, Diploma and 1 00
Scene, oil paintings, Miss F. Cressy, 2d premium, ... 3 00
Monochromatic paintings, C. F. Churchill, 1st premium, Diploma and 1 00
Monochromatic paintings, Miss F. Cressy, 2d premium, ... 2 00

Water color paintings and linear drawings, special, Mrs. H. P. Thum, Diploma and $2 00
Two monochromatic landscape drawings, Miss C. Stevens, special, ... 1 00
Oil paintings, fruit piece, Mrs. S. Chandler, foreign, special, ..Diploma.
Specimens Daguerreotypes and Ambrotypes, Dr. T. H. Laverty, Diploma and 1 00
Box artificial flowers, Miss H. P. Thum, special, ... 50
Wreath, hair flowers, Miss L. Gage, special, ... 50
Collection of flowers, Miss McDermid, special, ... 50

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DIVISION F.

CLASS I.—FRUIT.

Winter apples, J. W. Dickinson, 1st premium, Diploma and ... $1 00
" J. Sinclair, 2d premium, ... 2 00
Fall apples, H. Packer, 1st premium, Diploma and 1 00
" J. Keagle, 2d " 2 00
Peaches, D. Birdsall, 1st premium, Diploma and 1 00
" W. T. Lyon, 2d " 2 00
Pears, H. Johnson, Jr., 1st " Diploma and 1 00
" J. W. Dickinson, 2d " 2 00
Quinces, D. Birdsall, 1st " Diploma and 1 00
" N. Palmer, 2d " 2 00
" J. H. Fowler, ½ bushel, special, Diploma and 1 00
Watermelons, H. E. Whipple, 1st premium, ... 50
" L. J. Thompson, 2d " 25
Pickled peaches of 1854, 2 jars, Mrs. H. B. Tucker, ... 1 00
" 1855, 1 jar, " 50
" " " Mrs. W. T. Lyon, ... 1 00
Dried apples, Peter VanVleet, 1st premium, ... 50
" A. Ransford, 2d premium, ... 25

CLASS II.—BUTTER, CHEESE AND BREAD.

Bread, milk rising, Mrs. A. Lockwood, 1st premium, ... $0 50
" brown, Mrs. S. Gilmore, 1st premium, ... 50
" salt rising, Jas. Foote, 2d " 25

Butter from 5 cows in 30 days, F. Huff, 120 lbs., Diploma and $1 00
" 2 cows in 5 months, A. Keefer, 2d premium, Diploma, Evans' Dairyman's Manual and 1 00
Cheese, F. Huff, 1st premium, Diploma and 1 00
" N. Palmer, 2d premium, Evans' Dairyman's Manual and 1 00

CLASS III.—HONEY AND SUGAR.

Ten lbs. drained maple sugar, F. Fritts, ... $1 00
" caked " " 2d premium, ... 50
Three caps honey, N. Palmer, 1st premium, ... 1 00

CLASS IV.—VEGETABLES.

Potatoes, best sample, D. Hosford, Wild Mexican, 1st premium, $0 50
" greatest variety, R. Fogg, ... 1 00
" 2d " L. J. Thompson, ... 50
Greatest variety garden vegetables, J. Smith, ... 1 50
2d " " J. W. Dickinson, ... 1 00
10 table beets, F. Fritts, ... 50
5 heads cabbage, W. H. Blackmar, ... 50
Peck sweet potatoes, " 50
Quart Lima beans, " 25
Two varieties celery, H. B. Tucker, ... 50
10 ruta bagas, C. Proudley, ... 50
Two specimens pumpkins and 3 potatoes, special, G. Stoddard, . 50

CLASS V.—FLOUR AND GRAIN.

Best bbl. flour from least quantity of wheat, O. G. Emery, ... $1 00
" " any " " 1 00
60 lbs. Graham flour, O. G. Emery, ... 50
50 lbs. buckwheat flour, " 50
½ bushel winter wheat, A. S. Wells, ... 1 00
½ bushel Poland oats, M. Willetts, ... 50
1 doz. ears sweet corn, H. Johnson, Jr., ... 50
1 doz. ears pop corn, W. Thompson, ... 50
1 doz. ears 8 rowed yellow seed corn, I. H. McCollum, ... 50
1 peck timothy seed, A. Ransford, ... 50
2 doz. ears yellow dent corn, P. F. Terpening, ... 50

PLOWING MATCH.

F. Huff, Strouse plow, span horses, 1st premium, Diploma and $5 00
A. Benjamin, " " 2d " 5 00
J. W. Ferris, Curtis plow, " 3d " 3 00
L. W. Green, subsoil plow, span horses, special,..... 5 00

FARMS AND NURSERIES.

Garner Archer, Reading, 160 acres, 1st premium, Diploma and $10 00
Daniel Birdsall, Scipio, 100 acres, 2d " 10 00
H. B. Chapman, Reading, 120 acres, 3d " 5 00
H. Johnson, Jr., nursery, Hillsdale, Diploma and..... 5 00

The following premiums were awarded by the executive committee on unenumerated articles:

H. Packer, 1 doz. red peppers,..... $0 50
J. D. Winchell, 1 double barrel rifle,..... $1 00
S. Smith, cage of rabbits,..... 50
Dr. T. H. Laverty, specimens of dentistry,..... 1 00
S. E. Wilson, cage Canary birds,.....Diploma.
Miss Thompson, cage " 50
J. H. Depue, table brush,..... 50
F. U. Miller, exhibition of trained dogs,..... 3 00

LADIES' RIDING MATCH.

Mrs. C. W. Westfall, for grace and skill,.....Diploma.
Mrs. Geo. Armstrong, " ..... "
Mrs. W. O. Hoeg, " ..... "
Miss Ransom, special commendation, Diploma and..... $2 00
Miss Truman, for skillful horsemanship, " 1 00

F. M. HOLLOWAY,
Secretary.

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RECEIPTS OF COUNTY FAIR FOR 1854 AND 1855.

Membership tickets, 1855, ...667
" 1854, ...626

Increase,..... 41

Gate tickets, 1855,	1518
" 1854,	1168
Increase,	350

Making a difference of amount of cash received for tickets over last year $55 50.

ANNUAL MEETING OF THE HILLSDALE COUNTY AGRICULTURAL SOCIETY.

According to previous notice given, the Hillsdale County Agricultural Society held their Annual Meeting at the Court House in the village of Hillsdale, Jan. 26th, 1856.

Lewis Emery, President, called the house to order.

The report of the Executive Committee was called for, which was read, accepted and adopted.

The report of the Treasurer was called for, read, and on motion, accepted and adopted, and both ordered printed in the county papers.

On motion,

The Society proceeded to the election of officers for the ensuing year, as follows:

President—Phineas Howard, of Allen.

Vice Presidents—B. I. Kenyon, Adams; F. A. Seymour, Camden; L. W. Green, Pittsford.

Secretary—F. M. Holloway, Fayette.

Treasurer—G. C. Munro, Fayette.

Executive Committee—Samuel Randolph, Somerset; Zebulon Williams, Wheatland; Jackson Rush, Pittsford; Azariah Mallory, Moscow; Jesse Raymond, Wright; John M. Foote, Adams; H. F. Sutton, Jefferson; Wm. Cutcheon, Ransom; George Alford, Amboy; H. B. Tucker, Scipio; Geo. E. Dudley, Fayette; Moses Willetts, Cambria; J. B. Abbott, Woodbridge; M. P. Herring, Litchfield; Laban Howard, Allen; Fred. Fowler, Reading; Fred. Chester, Camden.

On motion of G. C. Munro,

The executive committee were requested to establish the next Fair at

Jonesville, provided the citizens of that place fit up the necessary buildings for the same, free of expense to the Society.

On motion,

The meeting adjourned.

LEWIS EMERY,
President.

F. M. Holloway, *Secretary.*

The Executive Committee of the Hillsdale County Agricultural Society would respectfully report:

That the agricultural interests of the county continue to increase. Marked improvements present themselves at every returning fair. Five years, with each of their annual exhibitions, has tended to establish permanently (what was then considered of doubtful utility by many of our citizens) a well organized Agricultural Society, through the influence of which Hillsdale will soon rank among the first agricultural counties of the State. At the organization of your Committee, on the 17th of April last, it was deemed advisable to institute some more permanent testimonial of reward for articles and products of first class merit, than the simple payment of a small money premium. To this end your committee have caused to be procured as such testimonial, a first class steel engraving, to be awarded as a Diploma in such cases, which, so far as we can judge, is highly appreciated by those who have received them.

At our annual exhibition, held on the 11th, 12th and 13th of October last, the improvement in stock and farm products was marked and superior to any previous exhibition; facts fully established by the number of entries made on the occasion, and the amount of premiums awarded.

Of the entries made, there were of cattle, 142; horses, 134; pens of sheep, 48; pens of swine, 3; poultry coops, 24; mechanic arts, 184; products of the soil, 145; farms and nurseries, 9; unenumerated, 25. Total of entries, 714, of which 314 received premiums to the amount, collectively, of $523 75 in cash, and about 50 Diplomas.

While your Committee refer with pride to the high position which the Society has already attained, we would also remind them that there

is much yet to do to obtain those results which will insure success. We refer you to those scientific experiments with the soil which shall increase its capacity for producing more in quantity, and better in quality.

Your Committee are aware of the difficulties that so often present themselves to many of our farmers with limited means and scarcity of help, with almost unbounded acres to look after and care for. But while these difficulties meet us, we may keep constantly in view the great object before us, and if we cannot command the means or help to bring up *all* of our acres, we may sell some of them, or we may lease them to nature until they shall have obtained a little rest; and in the meanwhile, we may be bringing to and replenishing the remainder.

Your Committee very much regret the cause, whatever it may have been, that should have influenced our Board of Supervisors to cut down our annual appropriation for the coming year over one half, believing, as we do, that it is not only reasonable, but that it is for the best interests of the county that a liberal appropriation be made.

Your Committee would further report, that the citizens of Hillsdale have leased for ten years ten acres of ground, and fitted up the same substantially for the benefit of the Society, on which to hold their fairs. We refer you to the Treasurer's Report for a statement of the finances of the Society.

All of which is respectfully submitted.

LEWIS EMERY,
Chairman.

F. M. HOLLOWAY, *Secretary.*
Dated, Hillsdale, Jan. 26th, 1856.

To the President and Executive Committee of the Hillsdale County Agricultural Society:

GENTLEMEN—For the third time I am called upon to report the financial condition of your Society. It is with much pleasure that I do it, and it is increased from the fact that the Treasury is still full and overflowing.

RECEIPTS.

April 17, 1855. Cash on hand,.....$358 00
Oct. 11, 12, and 13. For 668 membership tickets,..... 334 00

Sold same time 1518 gate tickets,	$151 80
Order on County Treasurer,	474 17
	$1,317 97

EXPENDITURES.

Paid for printing,	$37 00	
Books and stationery,	23 80	
Fitting fair grounds,	20 00	
Hay, corn, and oats,	34 56	
Pumpkins,	8 00	
Diplomas,	201 00	
Address,	10 00	
Village subscription,	125 00	
Secretary and clerks,	28 00	
Expenses of viewing committees,	8 00	
Premiums,	513 75	
Postage,	5 60	
Hillsdale Band,	10 00	
Incidental expenses,	35 55	
On hand,	257 71	
		$1,317 97

It will be seen by comparing the foregoing with my last year's report, that the incidental and ordinary expenses (notwithstanding three days fair) do not exceed those of last year. Also, that the total amount of tickets sold exceeds those of last year by four hundred, and that the amount of premiums paid, including Diplomas, will far exceed that of any previous year. The sum now in the Treasury, together with $284 82 appropriated by the county, and now in the hands of the Collectors, will make on hand an available amount of $542 53 to be appropriated the coming year.

All of which is respectfully submitted.

DANIEL BEEBE,
Treasurer.

ADDRESS

DELIVERED BEFORE THE AGRICULTURAL SOCIETY OF HILLSDALE COUNTY, BY R. F. JOHNSTONE, ON THE 11TH OF OCTOBER, 1855.

MR. PRESIDENT, *and Members of the Agricultural Society of Hillsdale County:*

I meet you here to-day under the disadvantage of having recently suffered from severe illness, from which I am not yet entirely recovered; and I can assure you that nothing less than the strong desire I had to make your personal acquaintance, together with the promise I had given your representative, Judge Emery, that I would most certainly visit you on this the occasion of your annual fair, could have induced me to leave home at this time.

Last summer I made a sort of flying visit along the great inland thoroughfare which runs through your beautiful county, and the momentary glimpses which such a ride only affords of the farms, openings, small prairies and groves of timber, gave me a very favorable impression of the agricultural advantages of Hillsdale and of a large portion of Southern Michigan.

Hillsdale county, according to the late State census, in point of population, area of improved land, productions and manufactures, stands about in the rank of the seventh or eighth county in the State. From the great preponderance of such articles as wool, wheat, corn, pork, butter and cheese, and the small amount of capital invested in manufacturing, it is very evident that nearly the whole wealth of this county is centered in the hands of those engaged in farming. It also appears that the kind of husbandry which mostly prevails is that usually known under the style of "*mixed farming.*"

There are, as I suppose you all know, several kinds of farming, such as stock and grazier farming, where the whole economy of the farm consists in raising, on extensive pastures, large herds of cattle or of sheep, and where the profits arise from the yearly sales of cattle, sheep or wool. This is the most simple of all kinds of farming, as well as the most primitive; being that which prevailed when the hoar Chaldee watched his flocks and the rolling stars by night on the hill sides of Mesopotamia, and sold his fleeces and his herds in the marts of Nineveh and Babylon.

The next kind is where the object is to render the dairy and its manufactures the great source of profit. This needs more capital, more skill, more labor, and a higher degree of managing capacity than the former. Again, a third kind of farming is that which dispenses with all animals except such as are absolutely required to perform the necessary labor, and for household use; the marketing produce in this instance consisting of hay, grain, straw, and such vegetables as may be raised for sale. Each of these systems has its advocates; each is suitable to certain localities, and will prevail according to the nature of the soil, the climate, and the general character of the country and its inhabitants. But the highest and most prevalent kind of farming among civilized nations is that which combines in a greater or lesser proportion, parts of all these several kinds, according to the judgment of the farmer himself, and which is called "mixed husbandry." He who would carry on this kind of farming successfully, must be a good workman with the plough, be acquainted with the art of raising all varieties of grain, grasses and roots, with the management of land, with the rotation of crops most suitable for it, and the art of ameliorating it by the application of manures. He must also know how to manage sheep, and be able to judge whether it is most for his interest to raise them solely for the fleece, or partly for the fleece and partly for the value of the carcass. He must be a good grazier and stock feeder, for he will necessarily have more or less stock of various kinds to feed and dispose of during the year. He must have some knowledge of horse flesh also, for his young colts will need a watchful master's care; and last, though not by any means the least item, will be the dairy with all the adjuncts of the cow-house, the pig-sty, and the poultry-yard, and the orchard. This *mixed husbandry*, you will see, extends over a large number of complicated departments, which have all to be made subordinate to each other, and all bring their respective quotas of revenue to swell the common stock. Each, if properly managed, will add to the aggregate profits of the farmer, and, should the season be such as to prevent one department from doing well, it frequently happens that some of the others can be extended to such an amount as to supply the deficiency. If the wool clip is sold at a low rate, the price of grain may make it up; if grain rules low, cattle and pork may be higher. It is seldom that all fail the thrifty farmer who minds his own business.

Now it is this *mixed husbandry*—this highest and most scientific kind of farming, to which our State, and more particularly this portion of it, is best adapted. At least this is the conclusion at which I have arrived in regard to this county from a cursory examination of its surface, and also from descriptions I have received from those whose facilities for knowing have been greater than mine. But there is another point from which, in considering the capabilities of the country, we must survey its position before we can thoroughly understand its advantages; and that is, *commercial locality*.

Hillsdale, in common with the counties by which she is surrounded, has outlets by railroad for her surplus produce both to the east and west. These outlets give easy facilities for the sale of her productions at the highest market rates, minus the cost of transportation to New York or Boston. For these eastern markets being the great emporiums where all produce goes for distribution to the actual consumers, they are, and must remain, the regulating scale by which we are guided as to the value of all articles raised by the western agriculturist. There is, for instance, no part of Michigan that can compete with the prairies of Illinois and Iowa in raising cattle in great numbers, favored as those States are by the natural rankness of the wild grasses, the mild climate and the vast range of as yet unappropriated pasture lands, as well as their fertility in corn; but then the farmers of Michigan have the advantage of being nearer that market which all must seek. When the cattle grower of Illinois has to pay $13 to $14 per head, of freight from his prairie to New York, the farmer who raises stock in Hillsdale need not have it cost him more than $9 to $10 per head to get his animals to the same place. So with his wheat, which may be laid down in New York from this county and not average a great deal over 28 cents per bushel for transportation; but this cost will be greater to the more western farmer, and must increase the farther he goes from the great distributing market.

Again, Hillsdale is well situated to become a centre from which other localities may be supplied with the better breeds of domestic animals. The diversified surface of her soil is calculated to give the stock raised here a good constitution; and as there is prospect of a constant demand for many years to come, to supply the west, which is just begin-

ning to know the necessity of improving its breeds, there is little fear of the market being overstocked with first rate animals, for a long time.

There is another branch of farming, though probably one of minor importance, for which this locality is admirably adapted; and that is, the growth of fruit. Need it be said that the orchards of Hillsdale ought to bring in a large revenue to their owners? I do not think it need look eastward, but westward for a market for their produce. It is there, where as yet no orchards have had time to grow, but where so many railroads are almost daily springing into existence, and opening new avenues of travel to a rapidly increasing population, that you may look for a constant demand and steady market for your best fruit; and this market extends the length of the Mississippi river, from St. Paul's to New Orleans. But you need not go so far from home; our own State has been but scantily supplied with fruit for the past two or three years, and for two months past not a barrel of dried apples has been for sale in the city of Detroit. So that with our own home wants to be supplied, and Chicago with her insatiable appetite, and the hungry, growing west stretching still beyond her, there is little danger that your orchards with all their advantanges of favorable soil and situation, will bear too abundantly.

Hillsdale is channeled by running water in all directions, being the fountain head of nearly all the important rivers in southern Michigan, and for elevation, variety of soil, undulating surface, and agricultural and commercial advantages combined, we doubt whether she has her equal north or south, east or west.

But I have not come here merely to utter praises of your beautiful county. On the occasion of such a meeting as this there are subjects of higher utility which should claim our attention. One of these I am about to bring before you. It is one which calls for investigation from us, and is worthy of all the light that you and I, and all of us together may be able to throw upon it.

Why is it that in a year of a very full crop, such as that of 1853, the amount of wheat grown in this county averaged but fifteen bushels and a third per acre? With the soil, the climate, and the favorable conditions under which wheat is usually grown here, the average amount per acre should be far nearer twenty-five than fifteen bushels. We admit that many farmers grow much more than this; and some reach as

high as thirty bushels per acre, yet, from this very fact, it will be seen that my inexorable average will reduce a great many crops to a produce of less than ten bushels, and some, probably, even as low as six bushels to the acre. Now such a produce will not pay for seed, labor, harvesting and marketing, and it would have been better for the grower had his seed never come up, than that it should bring forth in such stinted measure. Of course, no man will imagine from this that he is to be held responsible for failures or casualties resulting from severity of the weather, or storms, or other influences coming from a higher source than any agency of ours.

In Great Britain, a country where there is no such climate as this to ripen grain, and where, when one full average crop in five years is secured, farmers think themselves fortunate, the average amount of wheat grown per acre is twenty-seven bushels, and, I believe, last year it exceeded this, and reached to over thirty bushels per acre. There is no good reason why you should not have as large an average crop from your wheat fields as this of Great Britain. In climate you have every advantage; and in soil, I doubt if in the whole of Great Britain there are to be found any four counties which possess as much of such super-excellent wheat soil, as that which lies outspread before us. When the great alluvial drift, which geology points out as having at some period swept over this whole peninsula, was deposited and became the surface, the portion which formed this county was singularly well mixed with calcareous and other matters, forming a soil peculiarly adapted to the growth of wheat. Yet this soil, rich as it is, may be, and I fear too frequently is, misused. Chief among the abuses from which it suffers is shallow plowing; and it is an abuse which calls loudly for reform among a great majority of our farmers. We are often told that many of them are reforming in this respect, but it is certain that no general improvement can be felt till there is a greater and more general demand for implements that will enable them to stir the soil to a depth yet unreached by the shallow furrows that mark your fields. Ordinarily the plows most in use will not turn a furrow more than six or eight inches in depth, and even at many of our plowing matches, it is with difficulty that some of them can be made to run deeper than six inches. This is by no means deep enough, especially when we consider that the climate is such that our crops need all the protection the soil is capable

of giving them against its drouth. Where farmers are found who do practice deep plowing, it is almost invariably the case that their neighbors point to them as men who are in the habit of raising large and profitable crops. Is not this a sign, as significant as any reasonble man ought to ask for, of the benefits of deep plowing? I think myself subsoil plowing might be more generally introduced with advantage, than it has yet been; but as to whether it would be profitable if practiced on a large scale, in this State, I am not prepared to say, being without data or reports from agriculturists who may have made experiments in that line. On your deep, loose, loamy, gravelly subsoil, which is rich in all the mineral elements which render a soil valuable, I think it would do good service. Some of my friends have recently purchased subsoil plows, and have promised to report the result of their trials and experiments for the benefit of the public. One of these is in possession of a farm which has been so cultivated by its old French proprietors, that the last one had to give it up as completely worn out; and now my friend has taken hold of it, and he tells me that at the depth of three or four inches below the surface there is a hard layer of soil over which, year after year, the plow had been run until it appeared as though an indurated crust had been formed like that of a road bed, below which it was impossible for the roots of any plant to penetrate. This crust he was about to break up, and as each furrow was turned he would follow the breaking up plow with the subsoil which would break up and pulverize some five to six inches of soil which the first passing plow could not reach.

The necessity of deeper plowing, and a more thorough pulverization of earth than has been heretofore practiced, will be readily acknowledged, if we will only consider the services which the soil is required to perform. Now not only does the soil sustain the crop, but it has also to gather and digest a great part of the food with which the plant is fed, not only from the manures which may be buried in it, but from the rains that fall upon and pass through it, and from the air by which it is permeated. Within a few years past examinations have been made into the properties of the soil, and its qualities and capacities, by a very able agricultural chemist employed for the purpose by the Agricultural Society of England. From his researches it appears that the soil possesses many properties of which it was not before suspected, and

amongst these one of the most important is the power of separating from the air and laying up large supplies of ammoniacal compounds, which are of the utmost importance in the growth and maturing of nitrogenous plants. It also has the power of decomposing other compounds which contain potash, magnesia, and of reconstructing them in such subtle forms that they easily enter into the composition of plants. But to do all this the earth must be stirred efficiently and thoroughly. A single crop of thirty-five bushels of wheat taken from an acre of ground, with two tons of straw, at the same time will take from the field where it was grown two hundred and seventy-seven pounds of mineral substances, in the following proportion: silicia 170 lbs., phosphoric acid 30 lbs., sulphuric acid 8 lbs., lime 16 lbs., magnesia 10 lbs., potash 40 lbs., soda 3 lbs. Now ten crops of the same grain would carry off over a ton of these valuable minerals from the field, while according to the usual plan of cultivation not a pound would have been added to it; and no effort having been made by increasing the depth of the soil, or otherwise, to make up for the loss, by putting it in a condition to be acted upon by the elements, is it strange that we so often hear of farms which once produced thirty-five or forty bushels of wheat per acre, being now worn out, and their possessors moving away in search of new land to which the depleting process has not yet been applied, but which they are quite competent to commence and carry on *ad infinitum?*

The property of the soil to recuperate itself is recognized by every farmer who submits his land to the process of a naked fallow for the purpose, as he says, of letting it rest. But during this period the land does not rest; it is busy laying by, and storing away on every portion of its surface exposed to the sun and air, substances which will prove of the utmost service to the growth and maturity of the future crop.

We hear a good deal said about the invention of machines which will eventually supersede the plow. The attempts made within the past five years have not been very numerous, and as yet but ltttle if any progress has been made. The machines that have been presented to the public have been found too unwieldy, or not efficient enough to cause any one to throw aside the plow as yet. Undoubtedly when the hour and the man come, we shall have a horse power digger which will prove as labor saving as McCormick's reaper; but until they come

it is our duty to make the most of what we have, and to give our land a full opportunity to work for us. As I referred you at the commencement of this address to the lightness of the average production of wheat per acre, and have spoken of one of the causes of this lightness arising from a want of thorough cultivation, and not from any defect inherent in the soil; I will now turn to another cause which has to do more particularly with the wheat plant itself.

I believe that the seed sown is very defective, and that in it there might be a great change made for the better. The generality of wheat sown and grown,is much lighter in straw, shorter in head, smaller in kernel, and the sound grains fewer in number to each ear of grain, than they ought to be if we mean to approximate a maximum crop; and that should be the ambition of every farmer who puts a plow in the ground. If that is not his guiding principle let him come out from the plow stilts, he has no business there; and let a better man fill his place.

I say that most of our seed wheat needs a little new blood infused into it just as we infuse now blood from distant regions or foreign countries into our sheep to improve the quality of their wool, or into our cattle to improve their fattening qualities. It is a well known principle in vegetable physiology that if a single variety of any kind of plant is grown for a long series of years in the same soil, it will eventually deteriorate, and, to use the common expression, "run out." All our cultivated or domestic plants, it is also well known, have originated from a wild stock, and have been brought to their present perfection by a long continued system of cultivation, which has in many points changed them so that they would hardly be recognized as belonging to the same family as their wild originals. When left to themselves, however, the natural habit of the plant will resume its sway, and there will always be some of its progeny that will show an inclination to return to the habits of the native uncultivated plant in their form, depreciated size, and want of all those qualities that make it valuable to man.

As an instance of the tendency of plants to depreciate in value from want of proper cultivation, I will point you to a well known variety of wheat, the Soules, extensively grown in this State. Within the past three years I have had opportunities of examining it in different parts of the State, both in the field uncut, and after it has been made ready

for market, and my impression is that it has in a great measure run out, from having been grown too many successive years on the same soil, with the same unskillful course of cultivation. In the fields I have found the straw short and wanting in stoutness, the heads small and scantily filled, seldom containing over thirty-five or forty grains, many of them imperfect, as if the plant had been unable, from lack of strength, to ripen all alike. Even the sound grains were far from perfect, less than medium in size, and the spikelets seemingly wilted away.

Of the good qualities of this wheat, and its capacity to make fine flour, I make no denial; but I think it full time that ways and means were devised to introduce a more profitable variety, and one possessing the same good qualities combined with some which it confessedly does not possess.

Just calculate for yourselves what the result would be, if instead of having a field of wheat each ear of which produced on an average from thirty to forty medium sized grains, you had one which gave you from the same number of stalks, heads containing from fifty to sixty large sized, well developed grains. Would you not have an increase of more than one-third at the weighing scale of the buyer? and that is the testing point for the farmer of good or bad seed. Instead of raising a crop only equal to the average—the fifteen bushels cited as that averaged by Hillsdale county in 1853—he can reasonably calculate on at least one-third more. Remember that length of head, as a general rule, counts more to the acre than numerous stalks.

There is another matter in relation to wheat which I cannot better illustrate than by the relation of a transaction which took place under my own observation this fall. A few weeks ago, a farmer from one of the counties near Detroit, brought a lot of wheat to market, but it was so foul, and apparently so full of all kinds of seed except sound wheat, that he could not get an offer for it. Finally, a dealer tendered him a dollar a bushel, which the farmer accepted. The buyer's friends thought he had a hard bargain, but he resolved to test that question. So he hired three laboring men, and having a fanning mill of his own, he set them to cleaning the wheat. They worked at it a day, running it three times through the mill, and by night from six to eight bushels of chess and light wheat had been taken from the lot. But the weight of the whole had only been reduced *three* bushels. The next day the same

wheat was sold at $1 35 per bushel, realizing a profit of $26 95, after allowing $4 for the cleaning. Need I say anything more to you on this subject?

I firmly believe that with proper attention in the preparation of land, and the necessary care in procuring the best seed, every acre of wheat land in this county can be made to produce at the rate of twenty-five bushels to the acre, instead of the amount it now does. The whole amount of wheat produced in this county in 1853, was 341,000 bushels, from 22,120 acres, at a probable cost for labor and seed of $8 per acre, or $176,960 for the county, and for which the county gets back the seed for next year, the quantity necessary for home consumption, and the surplus, which would be about 200,000 bushels. Suppose a better culture costs the farmer $10 instead of $8, of what consequence would it be when his receipts would be more than double what they were before. If I have dwelt long on this subject, it is because of its importance to you, to the county, and to the State, and I could not pass it lightly by.

I come now to another important staple of the country, in the production of which I consider there is as great a deficiency as in the one of which I have just spoken.

According to the census tables, you had in 1854 nearly 41,000 sheep in this county, from which there was clipped a little less than an average of 3½ lbs. of wool each. In some of the towns there was a little more, and in some a little less than this average. In the town of Litchfield, for example, the average was over three lbs. per head, while in Fayette it barely reached two lbs., and in Wheatland each head of sheep produced two lbs. and a half.

It is evident that in all these towns sheep are raised as a necessary part of farm stock. In the town of Fayette there were 4,049 head of sheep. Is there any good reason why they should not have produced 4000 lbs. more of wool than they did, and thus added at least from $1200 to $1500 more to the wealth of the town? Even if they had done thus much, the sheep of Fayette would only have put themselves on a par with those of Litchfield, and it cannot be admitted that the latter have by any means reached the maximum of production, especially if we put any faith in accounts which occasionally reach us of single sheep yielding clips of twelve, fifteen, and even twenty pounds

weight as one season's growth. Indeed, I need not go outside of these grounds to refer you to sheep breeders who will tell you that every yearling and ewe in their flock grew during the last season from five to seven pounds of the choicest merino wool. For my own part, I believe that much of this lightness of fleece results from want of proper attention during the winter months, when the whole vital energy of the animal is needed to keep it alive, so that little strength can be spared for the growth of wool. Another point to which the attention of sheep growers should be directed, is the improvement of their flocks by the introduction of superior bucks. Of the necessity of this, there can be no dispute. The native stock, as they are called, have, by want of care in breeding properly, run out. Their progenitors seem to have been of no particular race; they were brought over by the first settlers, some from England, others from Holland, some from France, but all apparently belonged to a common stock, differing, perhaps, a little in size or in the quality of the fleece; but having been kept for a long series of years without any attention being paid to their improvement by the selection of choice animals to breed from, or by judicious crossing, they are now probably just as the common sheep of Great Britain were at the time the first importations took place. The defects in the native sheep are, that there is apt to be a great deal of hair on the limbs, the wool is coarse, uneven in its staple, often shaggy, and the weight of fleece light. The carcass is not well made up, the quarters being light, and the whole body raw-boned, besides being slow of growth, and even when of full size the weight does not render it valuable or profitable. Many of the flocks throughout this State are still unadulterated natives, proving what reliable "know nothings" their proprietors are. To improve such flocks at once, is not always in the power of their possessor, but there are few who cannot in a short time accomplish an entire change by the gradual infusion of better blood, by crossing with the most valuable breeds. In making this improvement, however, care must be taken that you are constantly stepping forward, not backward; be sure you breed from full blood animals on one side, always.

There is another point also from which the sheep husbandry of this country may be viewed, and that is locality, and the facilities which farmers here have of disposing of all their produce in the great consuming market of the east. Would it not be equally as profitable for the far-

mer to turn his attention to the raising of the larger breeds of sheep, and look to the butcher for some of his profits instead of relying altogether upon the wool. It is notorious that the merinos are the poorest of all mutton sheep, and that when the wool is off their backs they are really worth very little for market. This is a considerable drawback on them as a profitable animal, near a market which has a constant demand for the best meats; while on the great prairies of the west, where the wool is everything and the mutton is of little value, it would be considered no disadvantage whatever. The English have made persevering attempts during the present century, to introduce the merinoes by crossing them upon their strong fleshy breeds, but they have had to give it up. Those who were the most successful in growing the merinoes, found that the profits obtained from the wool did not compensate them for the inferior prices their sheep brought when put in competition with the Southdowns, the Leicesters, the Cotswolds, the Cheviots, and the Lincolns, all of which, both in weight and quality of flesh, far excelled the fine wooled race. I believe there are but two or three large flocks of pure merinoes now in Great Britain. Our climate, from its dryness, is much more favorable to merino sheep than that of England, but the severity of our winters is such that no reasonable, calculating farmer, ought to suppose they can pass that season without protection; and the more skillfully that protection is combined with ventilation and a proper quantity of food, the sooner will his animals exceed in their produce of wool the present average of 2½ pounds per head.

With the steady demand that has sprung up for all kinds of animals for the supply of the great city markets, and the high prices they bring, it is at least a subject worth taking into consideration, whether mutton would not pay better than wool. Still, however, it must as yet be a matter of experiment, which can only be demonstrated by years of trial, and cannot be decided either in a single season, nor by the experience of a single farmer.

Of the other productions of the farm, such as butter, cheese, pork, &c., there is ample room for increase and improvement in them, and I have no doubt there will be both soon, especially when I tell you that in the single article of cheese, your present rate of manufacture allows only about two pounds six ounces a year to each man, woman and child, within the limits of your county. This will hardly suffice some of your

inhabitants, or prevent those desiring a better supply from making importations from other States.

I have dwelt with some emphasis, and at some length, on the cultivation and economy of the leading articles of produce in your county. Their importance deserves it, and if, by showing you in some degree the results of what must be considered a defective system of farming, I can induce you to progress and improve, and thus increase your productions and your own usefulness and wealth at the same time, I shall consider myself well repaid for my visit. Were I addressing you as you were situated some eight or ten years ago, probably some of my remarks would be out of place; but the whole position of the farmers of this State has changed within that period; and now, instead of being on the outskirts of civilization, you are directly in the midst of it, and occupying a prominent place, too. With these fertile fields in your possession, it is expected that you will use them to the best advantage. With the most approved implements brought to your very doors, it is expected that you will not only learn to use them, but that you will patronize the manufacturer by using them up and ordering more, from the fact that they will be found indispensable to your more extended operations.

Instead of the scythe or the cradle swinging through your fields, it is now the mowing and reaping machines that with rapid clip lay the crops at your feet. Instead of the grain or the live stock being taken to market with many days of arduous travel, the steam car sweeps the whole from your sight, and returns to you the proceeds, it may be the next day, at the highest market rates. Instead of waiting for days to obtain a glimpse of what the prices of produce might have been days before the news of change reached this out-of-the-way part of the world, you are now in instant communication with all the great marts of commerce, and not a throb or a start thrills them that it is not felt even here through the nerve-like wires that have been stretched far and wide over the land, by the matchless powers of American invention.

On every hand, and from almost every department of science, you receive aid and encouragement in the path of progress. The chemist, in his laboratory, is at work among the long-hidden cells in which nature has hoarded her stores; with his apparatus he measures, weighs and tests the qualities of each new substance he brings to light; and

though many of his experiments have no direct reference to the farmer, in the growth of his crops or the tillage of his land, yet they are becoming more and more the basis upon which the correct principles of agriculture are founded. He tells you, reasoning from his analysis, that the leguminous plants must have a good supply of lime from which to extract the substances that form their vegetable matter; that the cereal plants must have the phosphates and silicates in the soil where their roots can reach them, if we would have them come to perfection, and that if we expect to raise large root crops, such as turnips, carrots, and vegetables of a like nature, potash and its compounds are needed in the soil to bring them to perfection.

You prefer the very common timothy grass for your hay; the chemist analyzes that grass, and shows you that there is a good reason for your preference. He tells you that timothy grass, taken from the field when nearly ripe, contains but 57.21 of water, while of flesh-forming matter there are 4.86, of fatty matter 1.50, of heat producing matter 22.85, and of woody fibre 11.52, exceeding in all these particulars 35 other kinds, both natural and cultivated, which were at the same time submitted to the same tests. Among these was the common red clover, 100 parts of which was found to contain 81. of water, 4.27 of flesh-forming matter, 0.69 of fatty substances, 8.45 of heat producing principles, and 3.76 of woody fibre, exceeding in these matters many other well known grasses.

While the chemist aids you in this way, by analyzing and identifying the principles of which the various plants are composed, explaining to you their wants and properties, another class of students, the physiologist, informs you to what extent these principles contribute to the nutrition of animals, how from one substance is formed the fat, from another the flesh and muscle, while others go to support respiration and animal heat.

The agricultural chemist again, conjointly with the geologist, describes the soils, their formation, their qualities, and the properties they possess of nourishing various kinds of plants. The botanist, also, is examining the vegetable kingdom with a view to pointing out the relations of plants to each other, and their uses, and of adding new varieties to those already naturalized and made fruitful, beautiful or profitable to man. In short, all the several departments of human art and learning are at

the present time more united in advancing the cause of agricultural knowledge, than at any other period since agriculture was dignified with the title of science.

In this connection I ought not to neglect calling your attention to the progress which the State has already made in founding an agricultural college worthy of her position. Under the care of the Executive Committee of the State Agricultural Society, the ground necessary for its location has been purchased, and preliminary surveys have been made with the view of allotting it off into divisions requisite to subserve the designs of the institution. It is probable that the coming twelvemonth will see even greater advancement than has been made in the past, in the erection of buildings, securing of teachers, and possibly even the organization of initiatory classes.

An institution of this kind is greatly needed to promote a more general diffusion of that knowledge which has too long been confined to the few. It is a State institution, and as such it becomes the duty of all who are desirous of seeing it prosper, to keep a watchful eye upon it, and to encourage it by manifestations of interest in its growth. Each County Agricultural Society should have its committee of visitors, who should, at least once in the year, consider it their duty to visit the college, to note its progress, and, by their advice, suggestions and remarks, give that countenance and encouragement such an institution should have from the whole community. It must be recollected that this is as yet an untried experiment in the United States. It is the first of the kind that has ever been attempted on so large a scale, and everything about it has to be commenced *ab initio*. There is no other to copy from, to improve upon; and this very fact gives it a broader and deeper claim upon us than if it were merely a sectional institution—one of a hundred whose failure or success would affect only the narrow limits of its own chartered organization. This, standing alone, without precedent or rival, will possess a national interest, and we should feel a national pride in contributing to its success. No lack of solicitude or encouragement on our part should be allowed to weaken the hands of those men to whose charge this great undertaking has been committed. And our watchfulness of them will not only enable the public the better to appreciate their labors, but will also afford a guarantee that the means appropriated are applied in the most judicious and economical manner to meet the necessities of the institution.

Farmers of Hillsdale—the spirit of the times is one of progress, and that spirit has infused itself into the agriculture of the country beyond all precedent. In no previous age of the world's history have we any record of such a concentration of interests in the cause of agricultural improvement as at the present period. Still, with all these improvements you cannot dispense with that grand principle which was enunciated by the great Roman Censor nearly two thousand years ago, when, on being asked what was the first principle of good farming, he answered, "plowing;" and what, said the querist, is the second? again he replied, "plowing." And what the third? And Cato again answered, "plowing." And what is next to plowing? said his questioner. "Manuring," replied the Roman. So with our agriculture at the present day. Plowing is the principle which lies at the foundation of all our agriculture. But that word plowing, means not merely the turning of the furrow slice, but the pulverization of the soil; and it is in making you thoroughly understand how important this work is that modern science lends you its aid in a manner and with a force totally unknown to your forefathers. So with the mechanic arts. How many heads and hands are kept employed in furnishing you with the implements demanded by your new modes of cultivation. Even while you are preparing to open up new fields, and to increase the produce of your old ones, markets are multiplying, and a more extended commerce bears the increasing surplus from your doors to be consumed by the labor of other lands. In the exhibition of the productions of the farm, the household and the workshop here before you to-day, you have a testimony of the progress your country is making in the improvement of its agriculture. These annual gatherings are now become a necessity. They give a wholesome stimulus to your labors, and afford food for reflection to the thoughtful after the first excitement has passed away. The great State Fair, with its more extended reach, brings together from all parts of the State its best productions and inventions; it also draws from other States by its offer of premiums and by the opportunity it affords of making them more widely known, animals of improved breeds, newly-invented implements of usefulness, and productions and inventions of mechanic art which otherwise might have long remained unknown to our citizens. It affords also the means of comparing what other States and counties are doing, and

noting in what the greatest improvement consists. But these county meetings, where each man is brought in contact with his neighbor, where town meets town in earnest competition, where the production of the dairy, the loom and the needle, bear testimony to the industry and skill of the fair hands to whose charge are committed those household duties which, when performed with order and intelligence, make the homeliest households the abodes of peace and happiness — it is these social county fairs after all, which must ever be of the greatest utility in stimulating a community to become more thoroughly conscious of its own deficiency, and will tend to shape its course of improvement. The exhibition you make to-day you could not have made a few years ago. Here where we stand was then the distant west; now that unknown portion of our continent has swept onward still farther towards the setting sun; and we stand, a link connecting the east with the west, and enjoying the advantages of both. Here you have a soil unrivaled in its adaptation to the cereal crops, and a climate and pastures that permit you to grow fleeces equal in value to that which the old Greek hero sought where now are contending the fleets and armies of eastern and western Europe. Men of enterprise are seeking your productions and bringing within your reach the improvements of other lands. You have at your command inventions which, by their utility and importance to the agriculturist, have completely cast into the shade the choicest workmanship of art in the old world, and borne off before their eyes, amidst the loudest plaudits, the loftiest honors and the highest meeds of praise.

Situated thus, and with science pursuing on land and sea, in earth and air, its bold researches, and laying at the feet of Agriculture the treasure it has gathered, with the State opening its coffers and acknowledging the right of the tiller of the soil to an education which shall advance his interests, the prospect of the future for the farmers of Michigan is most cheering.

Be it your duty then to know and to manifest your appreciation of the advantages you enjoy, and of which those who have gone before you had no conception. Be it your duty so to use your advantages that your lands may increase in value from year to year, and their fertility and productive powers remain unimpaired. Be it your duty to encourage those institutions of learning by which you are surrounded,

and thus to promote the prosperity of the free national institutions of which you are so justly proud, and by which alone labor is honored. And as time passes, the bountiful earth with her richest returns will amply reward you, while around you wll spring up sons and daughters to whom may be safely committed the sacred trust of perpetuating that liberty and that equality of rights which forms a free State and makes free citizens of us all.

JACKSON COUNTY.

LIST OF PREMIUMS,

Awarded at the Third Annual Fair of the Jackson County Agricultural Society, held on the 10th, 11th and 12th days of October, 1855, including Premiums allowed by Executive Committee:

CATTLE.—CLASS I—DURHAMS.

J. D. Crouch, best bull 5 years old and over. A good animal; received first premium last year.

M. & J. P. Shoemaker, best 3 years old and under 5, ... $5 00
N. & J. Morrill, 2d best do., ... 3 00
Dwight Hawks, best bull 2 years old, ... 3 00
D. M. Murphy, 2d best, Youatt & Martin on Cattle and 1 00
Silas Camp, best cow 4 years old and upward, ... 5 00
Silas Camp, 2d best do., ... 3 00
Silas Camp, best cow 3 years old, ... Stephens' Book of the Farm.
J. Morrill, 2d best do., ... Michigan Farmer.
J. M. Murphy, best 2 year old heifer, ... Youatt & Martin on Cattle.
C. L. Merriman, 2d best do., ... Michigan Farmer.
Dwight Hawks, best yearling heifer ..... Complete Farmer.
C. L. Merriman, best heifer calf, ... Trans. Ag. Society.
D. C. Vickery, 2d best do., ... Michigan Farmer.

CLASS II—DEVONS.

R. E. Aldrich, best bull 5 years old and over, ... $5 00
Geo. Taylor, best bull 3 years old and under 5, ... 5 00
M. & J. P. Shoemaker, 2d best do., ... 3 00
C. Sullivan, best yearling bull, ... 1 00
J. Marvin, 2d best " ..... Michigan Farmer.

W. W. Laverty, best bull calf, Michigan Farmer and..... $1 00
M. A. McNaughton, 2d best do.,.....Michigan Farmer.
Sherman Eastman, best cow 4 years old and upwards,..... 5 00
M. Shoemaker, 2d best " " 3 00
O. W. Bennett, best cow 3 years old,....Stephens' Book of the Farm.
M. Shoemaker, best 2 year old heifer,....Youatt & Martin on Cattle.
R. E. Aldrich, best heifer calf,.....Trans. State Ag. Society.
F. M. Foster, 2d best " .....Michigan Farmer.

CLASS III—FOREIGN CATTLE.

No entries made.

CLASS IV—CROSS OF BLOODS.

W. J. Tefft, best bull 5 years old..... $5 00
W. W. Laverty, yearling bull, 2d premium,..... 1 00
B. S. Griswold, best heifer calf,.....Michigan Farmer.

CLASS V—CROSS OF DURHAM AND NATIVE.

E. J. Connable, best cow 4 years old and upward, Michigan Farmer and..... $2 00
E. K. Moulton, 2d best cow 4 years old and upwards, Michigan Farmer and..... 1 00
Silas Camp, best cow 3 years old, Michigan Farmer and.... 2 00
B. S. Griswold, 2d best cow 3 years old,..... 1 00
M. A. McNaughton, best 2 year old heifer,..... 2 00
Silas Camp, 2d best " " .....Michigan Farmer.
N. & J. Morrill, best heifer calf, Michigan Farmer and..... 1 00
John Landen, best oxen 4 years old and over, Michigan Farmer and..... 2 00
Chester Wall, 2d best oxen 4 years old and over, Michgan Farmer and..... 1 00
Silas Camp, best oxen 3 years old, Michigan Farmer and.... 2 00
Chester Wall, 2d best oxen 3 years old, Michigan Farmer and 1 00
Sherman Eastman, best 2 year olds, Michigan Farmer and.... 1 00
N. & J. Morrill, best calves,..... 1 00
Chester Wall, a pair of calves—very good, and discretionary premium recommended.
Philip Thurber, a pair of steers 4 years old, discretionary premium and..... 1 00

CLASS VI—CROSS OF DEVON AND NATIVE.

A. H. Delamater, best cow 4 years old and upwards, Michigan Farmer and $2 00
R. E. Aldrich, 2d best cow 4 years old and upwards, Michigan Farmer and 1 00
Dwight Hawks, best 2 year old heifer, ... 2 00
R. N. Farley, 2d best 2 year old heifer, Michigan Farmer and 1 00
G. C. Drake, best yearling heifer, Michigan Farmer and 1 00
W. W. Calkins, 2d best yearling heifer, ... Michigan Farmer.
J. McNeil, best heifer calf, Michigan Farmer and 1 00
Dwight Hawks, 2d best heifer calf, ... Michgan Farmer.
Geo. Taylor, best 2 year old steers, Michigan Farmer and 1 00
Henry Eldred, best steer calves, ... 1 00

CLASS VII—NATIVES.

M. A. McNaughton, best cow 4 years old and upwards, Trans. State Agricultural Society and $3 00
J. McNeil, 2d best cow 4 years old and upwards, Michigan Farmer and 1 00
H. Dearin, best cow 3 years old, ... Stephens' Book of the Farm.
H. E. Dearin, best 2 year old heifer, ... Michigan Farmer.
M. & J. P. Shoemaker, 2d best 2 year old heifer, ... Michigan Farmer.
Calvin Wing, best yearling heifer, ... Michigan Farmer.
H. E. Dearin, best heifer calf, ... Michigan Farmer.

CLASS VIII—WORKING OXEN, STEERS, AND FAT CATTLE.

N. Morrill, best yoke oxen 5 years old and upwards, Transactions State Agricultural Society and $1 00
A. Avery, 2d best yoke oxen 5 years old and upwards, .. Mich. Farmer.
H. J. Hendee, best yoke oxen 4 years old, Michigan Farmer and 1 00
C. Allen, best yoke steers 3 years old, Michigan Farmer and .. 1 00
L. D. Wheeler, best yoke steers 1 year old, Michigan Farmer and 1 00
J. Fowler, 2d best yoke steers 1 year old, ... Michigan Farmer.

HORSES.—CLASS I—BLOOD HORSES.

Wm. S. Warner, best stallion—took 1st premium last year.

R. Bullock, 2d best stallion, ... Michigan Farmer.
J. M. Barber, best mare, ... $4 00
S. S. Brown, best colt, ... Youatt on the Horse.
Samuel Graham, stallion 6 years old, discretionary premium, Transactions State Agricultural Society for 1851.

CLASS II—HORSES FOR ALL WORK.

W. H. Hall, best stallion 5 years old and over, Transactions State Agricultural Society and $5 00
— Price, 2d best stallion 5 years old and over, Michigan Farmer and 3 00
S. H. Seats, best stallion 4 years old, Michigan Farmer and 4 00
B. C. Hatch, 2d best " " Michigan Farmer and 3 00
J. P. Hawley, best stallion 3 years old, ... 3 00
Jesse Hurd, 2d best " " Michigan Farmer and .. 1 00
A. H. Delamater, best stud colt 2 years old, Michigan Farmer and 1 00
E. Thayer, 2d best stud colt 2 years old, ... Michigan Farmer.
J. M. Barber, best stud colt 1 year old, Michigan Farmer and .. 1 00
J. Clement, 2d best " " ..... Michigan Farmer.
A. B. Clark, best mare 4 years old, ... 5 00
S. Wood, 2d best " " Michigan Farmer and 3 00
J. Tuttle, best mare 3 years old, ... 4 00
A. B. Clark, 2d best mare 3 years old, Michigan Farmer and .. 1 00
J. M. Murphy, best mare 2 years old, ... 3 00
H. F. Holcomb, 2d best mare 2 years old, Michigan Farmer and 1 00
J. D. Martin, best mare 1 year old 2 00
F. Randall, 2d best " " ..... Michigan Farmer.
Isaac Putnam, best brood mare, foal at foot, ... 5 00
Chester Wall, 2d best " " Michigan Farmer and 2 00

CLASS III—MATCHED HORSES.

H. C. Fritz, best pair matched carriage horses 2 years old and over, ... $5 00
A. L. Thayer, 2d best pair matched carriage horses 2 years old and over, Michigan Farmer and 2 00

D. B. Hibbard, 3d best pair matched carriage horses 2 years old and over, ... Michigan Farmer.
D. Huntoon, best pair matched horses of all work 5 years old, .. $5 00
B. G. Mosher, 2d best pair matched horses of all work, 5 years old, Michigan Farmer and 2 00
Chester Wall, best pair matched horses of all work 4 years old, 4 00
J. A. Snow, 2d best pair of matched horses of all work 4 years old, Michigan Farmer and 2 00
J. Tuttle, best pair matched horses of all work 3 years old, ... 4 00
Entry No. 33, best single horse, ... 3 00
R. Bullock, 2d best single horse, Michigan Farmer and 1 00
Morris Knapp, 3d best single horse, ... Michigan Farmer.
G. W. Fifield, 1 pair matched colts 16 months old, discretionary premium, ... 2 00

CLASS IV—JACKS AND MULES.

No entries made.

SHEEP.—CLASS I—SPANISH MERINO.

E. K. Crafts, best buck, ... $4 00
B. Peckham, 2d best buck, ... 2 00
J. McCloy, Jr., best 3 ewes, ... 3 00
E. K. Crafts, 2d best 3 ewes ..... Mor. American Shepherd.
E. K. Crafts, best 3 ewe lambs, ... Mor. American Shepherd.

CLASS II—FRENCH MERINO.

John D. Olcott, best buck, ... $4 00
D. W. Taylor, best buck lamb, ... Morrell's American Shepherd.
John D. Alcott, 2d best buck lamb, ... 50
John D. Alcott, best 3 ewes, ... 3 00
John D. Alcott, best 3 ewe lambs, ... Morrell's American Shepherd.

FOREIGN SHEEP—NOTICED AND COMMENDED BY COMMITTEE.

H. Hurlbut, 1 buck 3 years old.
A. J. White, 1 buck 2 years old.

CLASS III—SAXONIES.

No entries made.

CLASS IV—CROSS OF FULL BLOOD.

H. K. Fritz, best buck, ... $4 00
O. C. Whipple, 2d best buck, ... 2 00
H. Hurlbut, best buck lamb, ... Morrell's American Shepherd.
H. Hurlbut, 2d best " 50
J. D. Alcott, best 3 ewe lambs ..... Morrell's American Shepherd.
A. J. White, 3 bucks 3 years old, Foreign Sheep, noticed and commended by committee.

CLASS V—LONG WOOL.

O. W. & G. P. Bennett, best buck, ... $4 00
O. W. & G. P. Bennett, 2d best buck, ... 2 00
Silas Camp, best buck lamb, ... Morrell's American Shepherd.
" 2d best " 50
" best 3 ewes, ... 3 00
O. W. & G. P. Bennett, 2d best 3 ewes, .. Morrell's American Shepherd.
" " best buck, ... 2 00
" " best 3 ewes, ... Morrell's American Shepherd.
" " 3 best ewe lambs, Morrell's American Shepherd.

SWINE.

J. Fowler, best boar, ... $3 00
M. Shoemaker, 2d best boar, ... 2 00
J. Palmer, 3 best boars, ... Michigan Farmer.
M. Shoemaker, best sow, ... 3 00
" best lot pigs, Michigan Farmer and 1 00
James Holley, 1 large hog, discretionary premium, ... 3 00

POULTRY.

F. M. Foster, best Brahma Pootras, ... Bennett's Poultry Book.
C. L. Rogers, best red Shanghais, ... Bennett's Poultry Book.
" best white " ..... Brown's Poultry Yard.
H. Foster, 2d best red Shanghai, ... Miner's Poultry Book.
N. Morrill, best Cochin Chinas, ... Brown's Poultry Yard.
D. T. Grinnell, 2d best Cochin Chinas, ... Miner's Poultry Book.
" best Javas, ... Bennett's Poultry Book.
W. V. R. Howell, best lot common fowls, ... Brown's Poultry Yard.
Henry E. Dearin, best pair of turkeys, ... Bennett's Poultry Book.

Ami Filley, best wild ducks, ... Brown's Poultry Yard.
Matthew Dearin, best pair of geese, ... Miner's Poultry Book.
Lewis Bascom, cage of white doves, ... Brown's Poultry Yard.

GRAIN.

H. K. Fritz, best bushel wheat, Michigan Farmer and	$2 00
T. B. Tooker, 2d best "	1 00
Wm. Dilley, 3d best " ..... Michigan Farmer.	
M. J. Draper, best bushel barley,	1 00
G. Reynolds best 10 ears yellow corn,	1 00
A. Reynolds, 2d best 10 ears yellow corn,	75
Thos. Rockwell, 3d best 10 ears "	50
S. J. Miller, 4th best " "	25
J. A. Snow, best " dent corn,	1 00
J. J. Hendee, 2d best " "	75
Jesse Bivins, 3d best " "	50
Chauncey Hawley, 4th best " "	25
S. J. Miller, best 10 ears white corn,	1 00
H. Hurlbut, 2d best " "	75
M. & J. P. Shoemaker, 3d best 10 ears white corn,	50
E. Thayer, 4th best " "	25
H. K. Fritz, best bushel millet,	1 00

VEGETABLES.

S. O. Knapp, best peck onions,	$0 50
A. Reynolds, best peck potatoes,	50
A. R. Winchell, best peck turnips,	50
" " ruta bagas,	50
M. & J. P. Shoemaker, best peck carrots,	50
D. T. Grinnell, best peck parsneps,	50
T. B. Tooker, best 3 heads cabbage,	50
S. O. Knapp, best peck mangel wurtzel,	50
A. R. Winchell, best half bushel white beans,	50
S. O. Knapp, best peck tomatoes,	50
" best 3 heads celery,	50
H. Whitmore, best egg plant,	50
M. & J. P. Shoemaker, best squash,	50
W. W. Laverty, best pumpkins,	50

Thomas Rockwell, best sweet potatoes, ... $0 50
S. O. Knapp, best lot of mangel wurtzel, exceeding 50 bushels, on 25 square rods, Michigan Farmer and 3 00

DISCRETIONARY PREMIUMS.

J. J. Hendee, lot of ruta bagas, exceeding 50 bushels, particulars not given, Michigan Farmer and $1 00
J. M. Murphy, 1 French squash, ... 50
S. J. Mitchell, 1 box peppers, ... 50
E. P. Moulton, 1 peck potatoes, ... 25
" 1 bushel white radishes, ... 50
D. D. Tooker, half dozen pie squashes, ... 50
" half bushel potatoes, ... 25
S. O. Knapp, 1 bunch pie plants, ... 50
" best bushel of beets, ... 50

FRUIT.

H. J. Crego, best and greatest varety of winter apples, 3 of each variety, named, labeled and grown by exhibitor $1 50
D. Cook, 2d best and greatest variety of winter apples, 3 of each varety, named, labeled and grown by exhibitor, ... 50
D. Cook, best and greatest variety of fall apples, 4 of each variety, named, labeled and grown by exhibitor, ... 1 50
D. T. Grinnell, best peck peaches, ... 1 00
Bailey Bradford, 2d best peck peaches, ... 50
D. Cook, best peck quinces, ... 1 00
Calvin B. Bragg, 2d best peck quinces, ... 50
S. O. Knapp, best collection grapes, ... 1 50
" best Isabella grapes, ... 1 50
M. & J. P. Shoemaker, 2d best Isabella grapes, ... 1 00
S. O. Knapp, best Catawba grapes, ... 1 50
M. & J. P. Shoemaker, 2d best Catawba grapes, ... 1 00
D. Cook, best chestnuts, ... 50
S. O. Knapp, best summer pears, ... 1 00
Harwood & Dunning, 2d best do., ... 50
J. E. Beebe, best winter pears, ... 1 00
Harwood & Dunning, 2d best do., ... 50

A. R. Winchell, 2 seedlings, Columbia, apple named by committee, discretionary premium,..... $0 50

"It would not be doing justice to omit noticing some of the contributions for which it was impossible to award premiums. Some fine specimens of the Pound Pear, by F. M. Foster, Esq., are worthy of notice. Some fine Winter Pears, of J. T. Wilson, attracted the notice of the committee. Philip Thurber, Esq., had also some fine specimens of the Pound Pear and of winter apples on exhibition."—*Extract from Report of Committee.*

BUTTER, BREAD, CHEESE AND HONEY.

Lewis Brown, best sample butter,..... Silver butter knife.
A. L. Stiles, 2d best " ..... Miss Beecher's Domestic Economy.
Margaret Merriman, best loaf bread,..... Silver butter knife.
Mrs. M. J. Draper, 2d " Miss Beecher's Domestic Economy.
Silas Hayes, best sample honey, not less than 10 lbs.,..... $1 00
U. Bronson, 1 cheese,..... Beecher's Domestic Economy.
T. E. Turner, 1 loaf bread,..... do
Julia E. Bronson, " ..... do
Mrs. D. T. Grinnell, " ..... do

MECHANIC ARTS.

Welsh & King, best set of horse shoes,..... $0 50
Davis, Austin & Co., best 2 horse lumber wagon,..... 3 00
Miller & Dakin, best open single buggy,..... 2 00
" " " 2 00
Howe & Gibson, best saddle and bridle,..... 1 00
O. Emlay, best double harness,..... 2 00
" " single harness,..... 1 00
F. W. Anthony, best pair fine boots,..... 1 00
Root & Reynolds, best stoga shoes,..... 50
F. W. Anthony, best ladies' gaiters,..... 50
" best slippers,..... 50
Sumner & Bennett, best centre table,..... 1 00
" best chairs,..... 1 00
Myron Collamer, 2d best chairs,..... 75
" 3d " 50

Sumner & Bennett, best rocking chair, ... $1 00
Myron Collamer, 2d best " 75
" best dining table, ... 75
" best tea table, ... 75
Sumner & Bennett, best sofa, ... 1 00

Discretionary Premiums.

Myron Collamer, dressing bureau, ... $0 50
Lewis & Ayers, door, sash and blinds, Diploma and 1 00
F. W. Anthony, case of boots and shoes, ... Diploma.
Davis, Austin & Co., a large exhibition of sleighs, cutters, and carriages of excellent style and workmanship, ... Diploma.
J. R. Tuttle, rotary churn, Diploma and 50
J. W. Hulin, thermometer churn, Diploma and 50
G. G. Cornell, Felton's portable grist mill, Diploma and 1 00
Sylvester Davis, model platform bee hive, ... Diploma.
Wm. P. Smallidge, cast iron planes, ... "

FARM IMPLEMENTS.

R. N. Farley & Co., best corn cultivator, ... $1 00
Alonzo Bennett, best corn plow, ... 1 00
" best stubble plow, ... 1 00
" best subsoil plow, ... 1 00
" best gang plow, ... 2 00
A. B. & G. H. Felt, best straw cutter, ... 1 00
Bennett & Rice, best corn sheller, ... 2 00
A. B. & G. H. Felt, corn and cob crusher, ... 2 00
G. P. Adams, best fanning mill, ... 50

Discretionary Premiums.

I. H. Vandercook, 1 fanning mill of superior workmanship.
Elias Gage, 1 corn basket, ... $0 50
A. B. & G. H. Felt, 1 deep tiller plow, ... 1 00
" 1 plow, ... 1 00
Alonzo Bennett, 1 iron beam plow, ... 1 00
" 1 iron scraper.
Pinney & Lamson, 1 lot farming tools, superior, ... Diploma.
H. L. F. Gavitt, 1 plow holder, ... 50

C. E. McGee, 1 model farm gate, ... $0 50

The committee "regret that so many of the articles entered in this class are of foreign manufacture, as those made in the county were superior."

DOMESTIC MANUFACTURES.

R. B. Rexford, best 10 yards carpet, ... $1 00
" 2d best " 50
" best rag carpet, ... 1 00
Mrs. R. Davis, 2d " 50
Mrs. R. F. Fowler, best coverlet, knit, white, ... 1 00
Mrs. M. J. Draper, 2d " 75
" 3d " 50
Mrs. Geo. Kellogg, best quilt, white, ... 1 00
Ann Moore, 2d best " 75
Mrs. R. Davis, 3d best " 50
" best pair woolen stockings, ... 50
Eli Thayer, " " socks, ... 50
M. Collamer, " " mittens, ... 50
Mrs. G. Reynolds, best lb. yarn, ... 50
Eggleston & Aldrich, best coat, ... 1 00
" best vest, ... 50

Discretionary Premiums.

Mrs. R. F. Fowler, 10 yards rag carpet, ... $0 50
J. Woodworth, 1 rag carpet, recommended.
C. P. Russell, best buckskin mittens, ... 50
" " gloves, ... 50
Mrs. Sally Hurd, best rug, ... 75
Mrs. Semira Wood, 2d " 50
Mrs. Hannah Wood, best table spread, ... 50
Mrs. S. J. Warner, best bonnet, ... 75
Miss A. Downes, 2d " 50
" best child's bonnet, ... 50

STOVES, HARDWARE AND CUTLERY.

Discretionary Premiums.

B. J. Billings, 1 parlor stove, "Castle,"	$1 00
" cook stove, "Harvest Home,"	1 00
J. W. Hulin, case hardware,	1 00
" cook stove, "Woodland,"	1 00
" stove and kettle,	1 00
" corn and coffee roaster,	50
" boring machine,	50
Bennett & Rice, pruning axe,	50
" sheet iron parlor stove,	1 00
" cook stove, "Victor,"	1 00
" pruning saw and chisel,	1 00
" parlor stove, "Ilion,"	1 00

NEEDLE, SHELL AND WAX WORK.

Miss Farnham, best ornamental needle work,	$1 00
Mrs. S. W. Whitwell, 2d best "	50
Miss F. E. Farnham, best worked collar,	50
Mrs. H. L. Gregg, ornamental shell work,	1 00
Miss F. E. Choate, best wax flowers,	50
Miss Herrington, best artificial flowers other than wax,	75
Miss Carrie Langdon, best worsted work,	75
Miss Eliza J. McIntyre, 2d best "	50
Miss S. Wood, best lamp mat,	50
Mrs. G. F. Rice, 2d best "	25
L. Norton, best embroidered skirt,	1 00
Mrs. Dr. Rider, 2d best "	75
Kate Griffith, (12 years of age,) basque,	50
J. Reynolds, knit tidy,	50
Mrs. F. A. Kennedy, best crochet tidy,	75
Mrs. S. J. Warner, 2d "	50
Charlotte Langdon, best crochet collar,	50
Mary Judson, (11 years of age,) worsted work,	50
Mrs. S. C. Bowzer, best case of needle work,	1 00
Miss S. Wood, best embroidered veil,	50

Mrs. A. S. Palmer, best embroidered handkerchief, ... $0 50
Mrs. Hardy, best needle worked collar, but not regularly entered, discretionary premium, ... 50

MISCELLANEOUS ARTICLES.

Discretionary Premiums.

J. T. Wilson, caper tree, ... $0 25
" 4 varieties English coxcomb, ... 25
" 16 varieties dahlias, ... 50
" China monthly honey suckle, ... 25
Mrs. S. W. Whitwell, vase of dahlias, ... 50
J. V. Cookingham, a lot of Daguerreotypes, ... Diploma.
Mrs. C. R. Knickerbocker, drawings, ... 50
J. H. Treadwell & Co., crockery, china, glass and plated ware, .. 1 00
Mrs. A. Reynolds, monochromatic drawing and leather frame, .. 1 00
Miss C. Langdon, pair of gaiters, ... 50
Mrs. O'Brien, monochromatic picture, ... 50
Miss C. Lewis, " 50
" colored crayon drawing, ... 50
Miss Adelia M. Rathbun, botanical specimens, ... 25
Mrs. J. P. Shoemaker, 3 paintings of flowers, ... 50
Mrs. Langdon, 1 snake cactus, 1 Peruvian cactus, and 1 lemon tree, ... 50
Mrs. Dr. Rider, collection Canary birds, ... 38
J. L. Mitchell, 1 barometer, (made by exhibitor,) 50
H. G. Bliss, bottle of grape wine, ... 38
J. T. Wilson, juniper with fruit, ... 25
L. B. Johnson, 2 pictures, ... 50
Mrs. H. S. Ismon, leather work picture frame, ... 50
Miss M. Woodbury, monochromatic painting, ... 50
J. F. Metcalf, 1 rifle, ... 50
Mrs. D. Whiteman, 2 oil paintings, ... 75
Mrs. Bennett, orange tree with fruit, ... 50
Mrs. A. Blair, best bouquet, ... 50
Mrs. S. W. Whitwell, 2d best bouquet, ... 25
O. F. Pool & Co., 2 melodeons and other musical instruments, 1 00
" "a specimen of good hats," 1 00

Joseph E. Beebe, 1 bottle currant wine, 1st prem.,	$0 38
Geo. F. Rice, 2d prem.,	25
L. Bascom, 3d "	25
" 1 jar pickles,	38
Lottie F. Beebe, 1 pair rabbits,	25
John Lake, 1 swarm of bees and hive,	50
L. F. Darrow, 1 fancy box,	25
Mrs. L. Myrick, specimens Chinese work,	50
Miss E. Foster, specimens hair braiding,	50
Miss E. Gardner, 2 pictures, pencil work,	50
Miss C. Langdon, cage Canary birds,	25
Mrs. F. Livermore, 1 picture, leather work,	38
" 1 leather what-not,	38
Miss Ada Johnson, 1 Canary 7½ years old,	25
Entry No. 78, 5 bouquets,	25
Mary Judson, lot of pencillings,	50

Noticed and commended by Committee.

Sumner & Bennett, 1 lot of mirrors.

Webb & Butler, a quantity of confectionery.

J. T. Wilson, 1 bottle foreign wine.

Eggleston & Aldrich, satin vesting.

" silk velvet vest patterns.

Mrs. A. Bennett, Jr., 1 vase of gold fish.

J. H. Treadwell & Co., sample card of table cutlery.

Miss Woodbury, "water scene."

Higby & Titus, 1 case of perfumery.

The committee regretted the smallness of the amount left them to distribute, and "cannot close their report without expressing their great satisfaction at the good taste displayed in decorating 'Floral Hall.' It was done, we learn, principally by the ladies of the village of Jackson. They not only bestowed their labor, but their choicest flowers, paintings, drawings, and other specimens of their skill and handiwork. It added very much to the exhibition, and is deserving of all praise."

EUGENE PRINGLE,

Secretary.

ANNUAL MEETING OF THE OFFICERS, JAN. 18, 1856.

The following gentlemen met and answered to their names, the President, Hon. M. Shoemaker, being in the chair: S. O. Knapp, Jackson; Henry Hurd, Henrietta; A. H. DeLamater, Columbia; James DePuy, Spring Arbor; O. L. Cooper, Grass Lake; Silas Camp, Henrietta; D. W. Taylor, Rives; Garrett Coolbaugh, Leoni; Henry Daniels, Jackson; Norman Allen, Parma; Mark I. Ray, Concord; William B. Thorne, Hanover; Sidney Smith, Grass Lake; Aaron Reynolds, Spring Arbor.

It was *Resolved*, That the fourth annual fair be held on the grounds of the Society, in the village of Jackson, on Wednesday, Thursday and Friday, the 8th, 9th and 10th days of October next.

The following general rules, list of premiums, &c., for the year 1856, were then adopted:

GENERAL RULES.

Any person may become a member of the Society, for one year, by paying one dollar into the treasury.

Exhibitors will be careful to have their animals and articles arranged in their appropriate places, and in season; otherwise they will be overlooked by the viewing committees.

All articles intended for exhibition must be entered at the business office, at the entrance of the show ground, before entering the enclosure.

Exhibitors of stock should be very careful to enter their animals in their appropriate class; any grade animal entered as a full blood, will be excluded from competition in the class to which it belongs.

Horses will be entered under the head of stallions. Matched horses, single horses, or breed mares and colts, under four years of age, according to the fact, a short pedigree in writing will be required. For fat cattle, a short statement of the kind of food, manner and length of time of feeding, &c., will be required.

Cards will be furnished with the number as entered at the office. Exhibitors will be careful to place these cards upon or near the articles or animals, so that the judges will have no difficulty in finding them.

No animals or articles entered for exhibition can be taken from the

ground before 4 o'clock P. M. of the last day of the fair, and no premium will be paid on animals or articles removed in violation of this rule.

No discretionary premium will be awarded to any animal or article that competes for a premium offered in any class.

No person will be allowed to act as judge of any class in which he is a competitor.

As one great object of the Society is to collect valuable information upon subjects connected with agriculture, the several viewing committees are requested to gather all the information thus elicited, to make their reports as full as time and circumstances will permit.

Judges are requested to make their reports to the Secretary, at the business office, by 9 o'clock A. M., Friday, the 10th, without fail.

Stock to compete for premiums must be exhibited by the owner or his agent.

Domestic manufactures, needle, shell work, &c., must have been manufactured in the State, and within the year, except such articles as have not before been exhibited, and such articles, together with fruits, flowers, vegetables, &c., must be the production of the exhibitor, in order to entitle the competitor to a premium.

No animal will be allowed to compete for a premium as a Durham, Devon, or cross of blood, without a concise written statement of the age and pedigree, which must be satisfactory to the executive committee as to the purity of blood, and must have been owned and kept in the county for three months.

All animals and all articles brought into the county for exhibition, shall be entered and marked as foreign, and shall not come in competition with animals or articles of the county.

Prize animals, articles and implements at the previous exhibitions will be allowed to compete for the prizes.

Persons exhibiting several articles, will, in making their entries, have written lists of their articles, with the name of the exhibitor and place of residence attached, to hand to the book keeper at the business office.

Exhibitors of stock will, in making out their lists, give all the information possible concerning their animals.

In the horticultural department, it is particularly desired that complete and correct memorandums should be rendered.

The annual address will be delivered upon the grounds, at 2 o'clock P. M. of the second day.

At 1 o'clock on the third day, the reports of the viewing committees will be read and the premiums awarded, and the fair will close with the annual election of officers of the Society, to serve for the year commencing on the 1st day of January, 1857.

The executive committee take this occasion to say that an ample supply of fodder for the stock will be provided *without fail.* Particular pains will be taken that there shall be no cause of complaint in this respect.

LIST OF PREMIUMS.

CATTLE.—CLASS I.—DURHAMS: CLASS II.—DEVONS.

Best bull 5 years old and over, Transactions State Agricultural Society and	$5 00
2d best bull 5 years old and over, Transactions State Agricultural Society and	3 00
Best bull 3 years old and under 5,	5 00
2d best " " "	3 00
Best bull 2 years old,	3 00
2d best bull 2 "	2 00
Best yearling bull,	2 00
2d best "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 4 years old and upwards, Transactions State Agricultural Society and	5 00
2d best cow 4 years old and upwards, Transactions State Agricultural Society and	3 00
Best cow 3 years old,	3 00
2d best cow 3 "	2 00
Best 2 year old heifer,	2 00
2d best 2 "	1 00
Best yearling heifer,	2 00
2d best "	1 00
Best heifer calf,	2 00
2d best "	1 00

Judges of Durhams—H. C. Hodge, Concord; Alden Hewitt, Columbia; Jesse Hurd, Henrietta.

Judges of Devons—Grinnell Reynolds, Spring Arbor; F. A. Kennedy, Hanover; Levi Babbitt, Grass Lake.

The premiums mentioned above will be allowed on *each* of the above classes.

CLASS III.—FOREIGN AND FAT CATTLE.

Best Durham bull 2 years old and over,	$5 00
" heifer or cow,	5 00
Best Devon bull 2 years old and over,	5 00
" heifer or cow,	5 00
Best yoke fat oxen,	4 00
2d best "	2 00
Best fat cow,	2 00
2d best fat cow,	1 00

Judges—Silas Camp, Henrietta; Garrett Coolbaugh, Leoni; Norman Allen, Parma.

CLASS IV.—CROSS OF BLOODS.

Best bull 3 years old and upwards,	$5 00
" 2 "	3 00
Best yearling bull,	2 00
Best bull calf,	1 00
Best cow 3 years old and upwards,	3 00
Best 2 year old heifer,	2 00
Best yearling heifer,	1 00
Best heifer calf,	1 00

Judges same as in foreign and fat cattle.

CLASS V.—CROSS OF DURHAM AND NATIVE: CLASS VI.—CROSS OF DEVON AND NATIVE.

Best cow 4 years old and upwards,	$3 00
2d best cow 4 " "	2 00
Best cow 3 years old,	3 00
2d best cow 3 "	2 00
Best 2 year old heifer,	2 00

2d best 2 year old heifer, ... $1 00
Best yearling heifer, ... 2 00
2d best " 1 00
Best heifer calf, ... 2 00
2d best " 1 00

Judges of Durham and Native—Marvin Dorrill, Jackson; Zeba Crawford, Sandstone; A. A. Freeman, Liberty.

Judges of Devon and Native—David Adams, Tompkins; Alvinza Hunt, Napoleon; —— Corey, Pulaski.

The premiums mentioned above will be allowed on *each* of the above classes.

CLASS VII.—NATIVES.

Best cow 4 years old and upwards, Transactions State Agricultural Society and $3 00
2d best cow 4 years old and upwards, ... 3 00
Best cow 3 years old, ... 2 00
2d best " " 1 00
Best 2 year old heifer, ... 2 00
2d best 2 " 1 00
Best yearling heifer, ... 1 00
Best heifer calf, ... 1 00

Judges—J. S. Hurd, Jackson; William Winder, Grass Lake; Orrin Gillett, Springport.

CLASS VIII.—WORKING OXEN AND STEERS.

Cross of Durham and Native.

Best yoke oxen 4 years old and over, ... $3 00
2d best " 4 " 2 00
Best yoke oxen 3 years old, ... 3 00
2d best " 3 " 2 00
Best yoke oxen 2 years old, ... 2 00
2d best " 2 " 1 00
Best yoke yearlings, ... 2 00
2d best " 1 00
Best yoke calves, ... 2 00
2d best " 1 00

Cross of Devon and Native.

Best yoke 4 years old and upwards,	$3 00
2d best yoke 4 " "	2 00
Best yoke 3 years old,	3 00
2d best yoke 3 "	2 00
Best yoke 2 "	2 00
2d best yoke 2 "	1 00
Best yoke yearlings,	2 00
2d best "	1 00
Best yoke calves,	2 00
2d best "	1 00

Natives.

Best yoke oxen 5 years old and over, Transactions State Agricultural Society and	$1 00
2d best yoke oxen 5 years old and over,	1 00
Best yoke oxen 4 years old,	2 00
2d best " 4 "	1 00
Best " 3 "	2 00
2d best " 3 "	1 00
Best yoke steers 2 years old,	2 00
2d best " 2 "	1 00
Best " 1 "	2 00
2d best " 1 "	1 00
Best broke yoke of cattle 3 years old and over,	5 00
2d best " 3 "	3 00
3d best " 3 "	2 00
Best string of cattle, not less than 6 yoke, owned in one town,	5 00
2d best " " " "	3 00
3d best " " " "	2 00

Judges—David W. Taylor, Rives; Edward Delamater, Columbia; David Williams, Waterloo.

HORSES.—CLASS I.—BLOOD HORSES.

Best stallion,	$5 00
2d best " Transactions State Agricultural Society.	
Best mare,	3 00

2d best mare,	$2 00
Best colt,	2 00
2d best colt,	1 00

Judges—B. C. Hatch, Hanover; Gager Cady, Grass Lake; Milton Wood, Napoleon.

CLASS II.—HORSES FOR ALL WORK.

Best stallion 5 years old and over,	$5 00
2d best " 5 " "	3 00
Best " 4 "	4 00
2d best " 4 "	3 00
Best " 3 "	3 00
2d best " 3 "	2 00
Best " 2 "	2 00
2d best " 2 "	1 00
Best " 1 "	2 00
2d best " 1 "	1 00
Best colt,	2 00

Judges—R. J. Crego, Liberty; Caleb Chapel, Sandstone; Milton J. Draper, Rives.

CLASS III.—MARES FOR ALL WORK.

Best mare 4 years old and over,	$5 00
2d " 4 " "	3 00
Best mare 3 years old,	4 00
2d " 3 "	2 00
Best mare 2 years old,	3 00
2d " 2 "	2 00
Best mare 1 year old,	2 00
2d " 1 "	1 00
Best colt,	1 00

Judges—R. E. Aldrich, Parma; Michael Dwelle, Grass Lake; H. H. Vandercook, Jackson.

CLASS IV.—MATCHED, CARRIAGE AND SINGLE HORSES.

Best pair matched carriage horses 5 years old and over,	$5 00

2d best pair matched carriage horses		5 years old	and	over,	$2 00
3d best	"	5	"		1 00
Best pair matched carriage horses		4 years old,			4 00
2d best	"	4			2 00
3d best	"	4			1 00
Best	"	3			4 00
2d best	"	3			2 00
3d best	"	3			1 00
Best single horse,					3 00
2d best "					2 00
3d best "					1 00

Judges—S. G. Strong, Parma; Royal Bullock, Concord; Joseph B. Pierce, Jackson.

CLASS V.—MATCHED HORSES FOR ALL WORK.

Best pair matched horses		5 years old	and	over,	$5 00
2d best	"	5	"		2 00
3d best	"	5	"		1 00
Best	"	4 years old,			4 00
2d best	"	4	"		2 00
3d best	"	4	"		1 00
Best	"	3	"		4 00
2d best	"	3	"		2 00
3d best	"	3	"		1 00

Judges—Sidney Smith, Grass Lake; George Henry, Rives; D. B. Hibbard, Jackson.

SHEEP.—CLASS I.—SPANISH MERINO: CLASS II.—FRENCH MERINO: CLASS III.—SAXONY: CLASS IV.—CROSS OF FULL BLOODS: CLASS V.—LONG WOOL: CLASS VI.—FOREIGN SHEEP.

Best buck,	$4 00
2d "	2 00
Best buck lamb,	2 00
2d best "	1 00
Best 3 ewes,	3 00
2d "	2 00
Best 3 ewe lambs,	1 00

Best ewe,	$2 00
2d "	1 00

Judges of Spanish Merino—J. P. Shoemaker, Jackson; John Belden, Spring Arbor; Geo. C. Lord, Grass Lake.

Judges of French Merino—H. K. Fritz, Jackson; Jerry Reynolds, Concord; John J. Maxon, Leoni.

Judges of Saxony—Benj. Peckham, Parma; John Calkins, Grass Lake; J. McCloy, Waterloo.

Judges of Cross of Full Blood—J. M. Jameson, Springport; W. W. Laverty, Jackson; Flavius J. Randall, Columbia.

Judges of Long Wool—John Western, Jackson; Thos. Jones, Rives; W. B. Thorne, Hanover.

Judges of Foreign Sheep—Same as Saxony.

The premiums above mentioned will be awarded upon animals in *each* of the above classes.

CLASS VII.—CROSS OF FRENCH AND NATIVE: CLASS VIII.—CROSS OF SPANISH AND NATIVE.

Best 3 ewes,	$2 00
Best 3 ewe lambs,	2 00

Judges of classes 7 and 8—Alfred Paddock, Concord; H. G. Cole, Rives; David Hogue, Parma.

The above premiums will be awarded in each of the above classes.

CLASS IX.—FAT SHEEP.

Best fat sheep,	$2 00
2d "	1 00

Judges same as classes 7 and 8.

SWINE.—CLASS I.—FULL BLOODS: CLASS II.—ALL OTHER KINDS.

Best boar,	$3 00
2d best boar,	2 00
3d "	1 00
Best sow,	3 00
2d "	2 00
3d "	1 00

Best lot of pigs,	$2 00
2d best "	1 00

Judges of class 1 and 2—Oliver Hampton, Parma; Aaron Reynolds, Spring Arbor; Jas. Hawley, Columbia.

The above premiums will be awarded in each of the above classes.

POULTRY.

Best lot of Dorkings,	$1 00
" Shanghais,	1 00
" Polands,	1 00
" Cochin Chinas,	1 00
Best pair of Bantams,	1 00
Best lot of common fowls,	1 00
" and greatest variety of poultry,	1 00
" turkeys,	1 00
Best pair of geese,	1 00
Best lot of ducks,	1 00

Judges—J. E. Beebe, Jackson; Abiel Fellows, Sandstone; Jas. H. Smith, Grass Lake.

VEGETABLES.

Best peck onions,	$0 50
" potatoes,	50
" turnips,	50
" ruta bagas,	50
" carrots,	50
" parsneps,	50
Best 3 heads of cabbage,	50
Best bushel of oats,	50
" mangel wurtzel,	50
Best half bushel white beans,	50
Best peck tomatoes,	50
Best 3 heads celery,	50
Best egg plant,	50
Best sweet corn,	50
Best small yellow corn,	50

Best large yellow corn,	$0 50
Best squash,	50
Best pumpkins,	50
Best sweet potatoes,	50
Best citrons,	50
Best bushel ruta bagas, raised by exhibitor, and of lot not less than 50 bushels—exhibitor to state *quantity of land and product*,	2 00
Best bushel of flat turnips, raised by exhibitor, and of lot not less than 50 bushels—exhibitor to state quantity of land and product,	2 00
Best bushel of carrots, raised by exhibitor, and of lot not less than 50 bushels—exhibitor to state quantity of land and product,	4 00
Best bushel mangel wurtzel, raised by exhibitor, and of lot not less than 50 bushels—exhibitor to state quantity of land and product,	4 00
Best and greatest variety of culinary vegetables, raised by exhibitor,	2 00

Judges—Anson Townley, Tompkins; Russell B. Tomlinson, Jackson; Stephen B. Crawford, Springport.

GRAIN.

Best bushel wheat,	$2 00
2d best "	1 00
3d best "	50
Best bushel barley,	1 00
2d best "	75
3d best "	50
Best bushel oats,	1 00
2d best "	75
3d best "	50
Best 10 ears yellow corn,	1 00
2d best " "	75
3d best " "	50
4th best " "	25

Best 10 ears dent corn,	$1 00
2d best " "	75
3d best " "	50
4th best " "	25
Best 10 ears white corn,	1 00
2d best " "	75
3d best " "	50
4th best " "	25
Best bushel millet,	1 00
2d best "	50
Best barrel flour,	2 00
2d best "	1 00

Judges—J. L. Butterfield, Brooklyn; Reuben R. Tingley, Rives; G. A. Baldwin, Hanover.

FRUIT.

Best and greatest variety of winter apples, 3 of each variety, named, labeled and grown by exhibitor,	$3 00
2d best and greatest variety of winter apples, 3 of each variety, named, labeled and grown by exhibitor,	2 00
3d best and greatest variety of winter apples, 3 of each variety, named, labeled and grown by exhibitor,	1 00
Best and greatest variety of fall apples, 3 of each variety, named, labeled and grown by exhibitor,	2 00
2d best and greatest variety of fall apples, 3 of each variety, named, labeled and grown by exhibitor,	1 00
Best and greatest variety of peaches, 3 of each variety, named, labeled and grown by exhibitor,	1 00
2d best and greatest variety, of peaches, 3 of each variety, named, labeled and grown by exhibitor,	50
Best variety peaches,	1 00
Best peck peaches,	1 00
2d best "	50
Best peck quinces,	1 00
2d best "	50
Best collection plums,	1 00
2d best "	50

Best collection nectarines,	$1 00
2d best "	50
Best collection of grapes,	1 50
2d best "	1 25
3d best "	1 00
4th best "	50
Best Isabella grapes,	1 50
2d best "	1 00
3d best "	50
Best Catawba grapes,	1 50
2d best "	1 00
3d best "	50
Best raspberries,	50
Best chestnuts,	50
Best summer peas,	1 00
2d best "	50
Best winter peas,	1 00
2d best "	50

Judges—Simon Holland, Columbia; James Nash, Hanover; Samuel Fassett, Sandstone.

BREAD, BUTTER, CHEESE AND HONEY.

Best sample butter not less than 10 pounds,	Silver Butter Knife.
2d best " " "	$1 00
Best sample cheese, Silver Cream Spoon and	3 00
2d best "	2 00
Best loaf bread,	Silver Butter Knife.
2d best loaf bread,	1 00
Best sample honey, not less than 10 pounds,	1 00

The exhibitors of butter must state in writing the time when the butter was made, mode of keeping, treatment of the cream and milk before churning, winter and summer method of freeing the butter from the milk, the quality and kind of salt or other substance which may have been used.

The exhibitors of bread and cheese must also state the manner of making the same.

Judges—Rev. D. T. Grinnell, Jackson; Mrs. S. O. Knapp, Jackson; Mrs. E. J. Connable, Jackson; Mrs. Edward Delamater, Columbia.

MECHANIC ARTS.

Best sett of horse shoes,	$0 50
Best two horse lumber wagon,	3 00
Best single and open buggy,	2 00
Best single and covered buggy	2 00
Best saddle and bridle,	1 00
Best double harness,	2 00
Best single harness,	1 00
Best flour barrel,	50
Best pair stoga boots,	50
Best pair fine boots,	1 00
Best pair stoga shoes,	50
Best pair lady's gaiters,	50
Best pair lady's slippers,	50
Best centre table,	1 00
Best chairs,	1 00
2d best "	75
3d best "	50
Best rocking chair,	1 00
2d best "	75
3d best "	50
Best dining table,	75
2d best "	50
Best tea table,	75
2d best "	50
Best sofa,	1 00
2d best sofa,	50

Judges—W. F. Dennis, Brooklyn; C. T. Beebe, Jackson; P. C. Vreeland, Grass Lake.

FARM IMPLEMENTS.

Best harrow,	$1 00
Best corn cultivator,	1 00

Best wheat cultivator,	$1 00
Best corn plow,	1 00
Best stubble plow,	1 00
Best subsoil plow,	1 00
Best gang plow,	2 00
Best grain cradle,	50
Best reaper,	5 00
Best mowing machine,	5 00
Best mower and reaper combined,	5 00
Best threshing machine,	5 00
Best clover machine,	3 00
Best wheat drill,	2 00
Best corn drill,	1 00
Best garden drill,	50
Best half dozen manure forks,	50
Best half dozen hay forks,	50
Best half dozen hoes,	25
Best straw cutter,	1 00
Best scythe snath,	50
Best ox yoke,	50
Best churn,	1 00
Best corn sheller,	50
Best corn and cob crusher,	2 00
Best fanning mill,	50
Best horse rake,	1 00

Judges—J. V. Carmer, Columbia; Sherman Eastman, Sandstone; William Dwelle, Grass Lake.

DOMESTIC MANUFACTURES.

Best 10 yards carpet,	$1 00
2d best "	50
Best rag carpet,	1 00
2d best rag carpet,	50
Best coverlet,	1 00
2d best coverlet,	75
3d best coverlet,	50

Best quilt,	$1 00
2d best quilt,	75
3d best quilt,	50
Best comfortable,	50
Best woolen shawl,	50
Best 10 yards flannel,	1 00
2d best 10 yards flannel,	50
Best pair woolen stockings,	50
Best pair woolen socks,	50
Best pair woolen mittens,	50
Best pound woolen yarn,	50
Best cloth coat,	1 00
Best vest,	50
Best pair pants,	50
Best piece embroidery,	1 00
2d best "	75
3d best "	50

Judges—J. C. Southworth, Tompkins; Mrs. J. P. Shoemaker, Jackson; Albert Paddock, Concord; Mrs. O. Hampton, Parma; Mrs. O. L. Ryder, Grass Lake.

STOVES, HARDWARE AND CUTLERY.

Discretionary premiums not to exceed in all $20 00

Judges—C. W. Penny, Jackson; Henry W. Donnelly, Parma; G. P. Cook, Brooklyn.

NEEDLE, SHELL AND WAX WORK.

Best ornamental needle work,	$1 00
2d best " "	50
Best table cover,	50
Best group of flowers,	50
Best variety of worsted work,	50
Best worked collar,	50
Best worked quilt,	50
Best two lamp mats,	50
Best ornamental shell work,	1 00

2d best ornamental shell work,	$0 50
Best wax flowers,	50
2d best wax flowers,	25
Best artificial flowers other than wax,	75
2d best " " "	50
And discretionary premiums to the amount of	10 00

Judges—G. F. Rice, Jackson; H. L. Gregg, Jackson; Miss Julia DuBois, Columbia; Mrs. Dr. Tunnicliff, Jackson; Mrs. R. E. Aldrich, Parma.

MISCELLANEOUS ARTICLES.

Discretionary premiums not to exceed	$25 00

Judges—Hon. D. Johnson, Jackson; Mrs. A. Bennett, Jr., Jackson; Mrs. John Stewart, Jackson; Geo. S. Scranton, Concord; Daniel Upton, Parma.

FIELD CROPS.

Best acre of corn,	$5 00
" wheat,	5 00
" oats,	5 00
" potatoes,	5 00

The executive committee will award the premiums on field crops on their first meeting after the fair, which will be duly published.

The plowing match will be held on the morning of the last day of the fair, and due notice will be given of the place, regulations and premiums to be awarded.

Judges of Plowing—Marvin Dorrill, Jackson; Grinnell Reynolds, Spring Arbor; Lewis Brown, Parma; C. L. Rogers, Grass Lake; Mark L. Ray, Concord.

PRICES OF TICKETS.

Tickets of membership, $1 00. Will admit the members of one family, exclusive of sons over 21 years of age, during the continuance of the fair.

Family tickets, 50 cents. Good for one admission, on either day of

the fair, for the members of one family, exclusive of sons over 21 years of age.

Single tickets good for one admission only. First and third day tickets, 15 cents. Second day tickets, 25 cents.

No variation from the above prices or exceptions will be made, except in the cases of clergymen; but officers, judges and all others will be required to purchase tickets before entering the grounds. Clergymen admitted free.

The executive committee, in publishing the programme of the proceedings of the Society for 1856, and the condition of its financial affairs, would most respectfully state to the farmers of Jackson county, and all others who feel an interest in the welfare of the society, that after obtaining to the fullest possible extent the views and wishes of all concerned, they have decided that for the purpose of relieving the society from its indebtedness and placing it upon a firm and substantial basis, it is necessary that the terms of membership and admission should be the same as last year and as now advertised, modified so as to admit all the members of one family, except sons over twenty-one years of age, on the membership and family tickets.

In this connection it is proper that the committee should briefly review the past action of the society, and state its present condition.

The society was organized and the first fair held in 1853, since which time, in addition to the payment of all current expenses, premiums, and expenses incident to holding the fairs, there have been purchased thirteen acres of ground, lying on the west side of Grand River and immediately joining the village of Jackson, at a cost of fifteen hundred dollars, and on this land improvements have been made in buildings, fences, &c., to the amount of $2,584 03, making a total of $4,084 03, all of which has been paid except $850, of which $600 is for payments not yet due for the purchase of fair grounds, and $250 borrowed for the purpose of paying premiums, &c.

The improvements consist of an octagonal building 58 feet in diameter, each side 22 feet in length, with posts 18 feet high, a double or raised roof over the centre, with windows between—also, two wings, each 50 feet in length by 22 in breadth, making in all a building 158 feet in length, well proportioned, of fine appearance, substantially built and handsomely painted. Fronting one of the principal streets of

Jackson, its situation is alike beautiful and commanding. It is perfectly adapted to the use for which it is intended, and is unsurpassed in every respect by any building of the kind in the State.

The grounds are most beautifully and conveniently situated, lying eighty rods on Grand River and extending back with a gentle slope, and can at a small expense not only be made to answer every purpose for which they were intended, but also an ornament to the county and village, and will reflect credit upon the society. From their favorable location these grounds are constantly increasing in value, and can at any time be sold for more than the cost of the land and improvements.

The grounds are enclosed, one-half by a tight board fence and the other by a picket fence, all of pine and six and a half feet high, and is built in a durable and permanent manner.

The executive committee have extended the premium list, both in the amount and number of premiums offered, and intend that no pains shall be spared to make the fair a farmers' festival, and acceptable to all.

With results as favorable as last year we shall be able to commence another year free from debt or embarrassment of any kind.

The purchase of the land included the right to use the water of the springs in the hill side west of the fair grounds; this can be brought into the grounds at a small expense, and a fountain erected that will throw the water fifteen feet high and will be of great beauty as well as utility.

This and the making of suitable rings for the exhibition of horses and cattle, the grading of the grounds, removing of the stone and setting out shade trees, the executive committee hope to be able to accomplish, by the aid of the liberality of the citizens of Jackson, previous to the next annual fair.

The committee would further state that the strictest economy has been observed in making these improvements and in all the expenditures of the society—that all this business has been done by the officers without charge, as no officer except the Secretary has ever been paid for either time or labor while acting for the society; and we think we can with confidence challenge the State as having the best organized county society, and as having produced greater results than any other. We think that when the short length of time which the society has

been organized, the value of lands, improvements, and the amounts paid for premiums are considered, we may be allowed to congratulate ourselves on our unexampled success, and on the intelligence and liberality of the agricultural community which has produced it, and we indulge a confident belief in its continuance.

M. SHOEMAKER,

President.

E. J. CONNABLE, *Secretary.*

Jackson, February 2d, 1856.

KENT COUNTY.

SEVENTH ANNUAL REPORT OF THE KENT COUNTY AGRICULTURAL SOCIETY.

J. C. Holmes, Esq., *Sec'y Mich. State Agricultural Society:*

Dear Sir—It is with no little pleasure that I sit down to perform the duty of reporting to your office the transactions of the Kent County Agricultural Society for the year 1855. Our progress has been so marked with increased success that we have exceeded our most sanguine expectations, and, in fact, surprised ourselves. Heretofore the Society has been cramped in resources, whilst the farming public had not accorded to it that interest in its welfare which it and their own interests demanded. In a great measure this supineness was owing, undoubtedly, to the newness of the greater part of our county. The most of our farmers were men of limited means, struggling to civilize the wilderness, and bring improvement out from the woods and wilds, and hence could not give attention beyond their immediate and pressing necessities.

But times were improving. Emigration was receiving a new impetus, and a better class of farmers, those with more means and an enlarged experience, were taking the places of the floating and more easy-to-do cultivators of some parts of our soils. Improvement, too, was getting a start, and all began to feel a stronger desire to brush up and to keep stirring with the progressing times. It was then, perhaps, a more opportune moment when the board of officers were inaugurated for 1855. Headed by a most efficient President, W. S. H. Welton, Esq., who was alive to the best interests of the Society, and an equally good Secretary, S. S. Bailey, in his sphere, the executive committee at their

meeting in December, 1854, took a survey of their position and resolved that the Kent society should take a long stride in progress and improvement, if in their power to keep it along. The Society had no ground for its shows except as it could secure the favor, here and there, from year to year, consequently no pains had been taken to improve a piece except for the time being. It was resolved to lease a plat of ground for a term of years and make such improvements as could be made. But the Society had no funds to fall back upon, and all that could be done was to look to the future and trust to good fortune.—Through the indefatigable exertions of our President an eligible piece was obtained within the city limits of Grand Rapids, at a mere nominal cost, the lumber obtained, and a good, tight and substantial board fence constructed around it, and two or three small rustic buildings put up inside for show purposes, all the expense of which was assumed by the President personally. The grounds were quite appropriate, being intersected by a limpid brook that skipped across it. The fencing, grubbing and grading of this ground cost the sum of $378 72—rather a large sum to stare a society in the face that had not as yet been able to raise scarce a hundred dollars annually. But the executive committee had abiding faith in their purposes, and went straight forward without any fears for the result. They also launched out on the premium list and quadrupled it over any former year. The public, particularly that in the older portions of the county, seconded the spirit of the committee, and, as the result proved, awarded a greater success to their efforts than they had dared to hope for.

Our fair was held on the 25th, 26th and 27th days of September, and the weather proved auspicious for the occasion. Owing, however, to the backwardness of the seeding and the hurrying times with farmers, made doubly so by the unusual amount of untoward weather previously experienced, the exhibition and attendance from the country around was not so large as it would have otherwise been. Still the show and attendance was quadrupled over any former year. The first day was devoted to entries, which was continued on the second until eleven o'clock, after which the several committees made their examinations and reports. On this day the grounds were much thronged. The third day gave us a *jam* of spectators, and we found our conven-

iences, which we had flattered ourselves were more than ample, quite too inadequate and inconvenient.

In the afternoon of the last day the throng listened with marked attention to a plain and practical extempore address by the Hon. Charles E. Stuart, of Kalamazoo. It was a valuable address, and the Society most sincerely regret that Mr. Stuart's business engagements were so urgent as to prevent him from writing it out for publication and distribution.

The following extract from my predecessor's report of the occasion, as published in our county papers, will speak for itself, and will show somewhat of the good time then and there enjoyed by those present:

The order of the proceedings on the third day was very nearly as follows:

First—The reception of a procession, very long and wide, from the city, at about 1½ o'clock P. M., which very materially added to the funds of the Society.

Second—Music by the Grand Rapids Band.

Third—The annual address by Hon. Charles E. Stuart, of Kalamazoo. The address was plain and practical, abounding with good common sense. And if those farmers who have rather poor fences had been there, (*I was there*, were not some of *you*, brother farmers?) they would have gone home resolved on fixing up their fences and building better ones; (*I did*, did not some of *you?*) The speaker thought that fences looked much better on their own foundations than on the *necks* of horses and cattle. He urged upon farmers the importance of keeping the best of stock, and keeping it well, and by all means to avoid crosses.

He urged farmers not to neglect seeding down their land. Seed it down by all means, even if it takes the last cow to buy the seed—the trade would be a good one. In putting out fruit trees he urged them to select the best. It was just as easy to raise good fruit as poor, and much more pleasurable and profitable. It cost no more to raise a good peach than one that was nearly worthless—the same might be said of other fruits.

But I may do injustice to the speaker should I attempt further to give his opinions and remarks on the various subjects connected with agriculture and domestic duties. At the close of the address, no doubt

many resolved to go home and do better and to take "*excelsior*" for their motto. The Secretary would urge upon such of you as did thus, not to "resolve and re-resolve and die the same," but carry out your resolutions in a manner worthy of farmers possessing such a goodly land as we possess, and having such a heritage.

Fourth—Music by the Band—good music, too.

Fifth—The reading of the award of premiums by the Secretary.

Sixth—The election of officers for the ensuing year.

The President, W. S. H. Welton, urged upon the members in making such a selection of officers, to choose those who would perform their several duties promptly and faithfully, and who would be on hand *without fail* at the meetings of the executive committee. It is hoped that such a selection has been made.

After the election of officers a hearty vote of thanks was given to the speaker for the able and instructive address delivered. Also, to the Band for the good music with which they had entertained us—also to the Marshal, W. P. Mills, for his valuable services during the fair.

Eighth and last—Some very loud guns by the artillery company from over the river.

Thus has passed the seventh annual fair of the Kent County Agricultural Society. Has it been profitable? Has it paid the cost and trouble? The eye has, no doubt, been well satisfied, but sight-seeing alone does not always pay. The understanding must be enlightened, the judgment strengthened, the purposes of life ennobled. That this fair has had or may have this effect, the executive committee ardently hope and trust. Cherishing this conviction the officers of the Society feel strengthened and determined to make the eighth annual fair a very great improvement on the seventh—having an eye at all times to the advancement of agriculture, manufacture and the mechanic arts, hoping by their promotion to contribute in no small degree *to the happiness of man.*

SLUMAN S. BAILEY,
Secretary.

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The following is the list of officers at that time elected for the present year:

President—W. S. H. Welton, Grand Rapids.

Treasurer—J. F. Chubb, Grand Rapids.

Secretary—T. E. Wetmore, North Cameron.

Executive Committee—G. C. Fitch, Grand Rapids City; Andrew Loomis, Walker; L. K. Jenne, Grand Rapids; S. S. Bailey, Paris; G. M. Barker, Walker.

Vice Presidents—Hiram Rhodes, Ada; O. H. Foot, Grand Rapids City; Kendall Woodard, Grand Rapids; Jas. Dockeray, Cannon; F. A. Marsh, Cascade; Henry Hall, Plainfield; Seth Lockwood, Courtland; Wm. Wylie, Sparta; Geo. L. Knight, Walker; John Colton, Alpine; J. C. Rogers, Wyoming; Chas. Kelly, Gaines; D. C. McVean, Bowne; —— Hoag, Vergennes; Smith Lapham, Algoma; Henry Seymour, Paris; J. W. B. Smith, Grattan; P. D. McNauton, Caledonia; Sheldon Ashley, Oakfield.

The entries of animals and articles for competition and exhibition largely exceeded any former year both in number and character, and had the show been two weeks later, would have still been much greater. As it was, there were over 500 entries; nearly three times any former show. Of those entries made for competition there were in the several classes as follows:

Of short horns and grades, 22 entries.
Of Devons and natives, 29 "
Of horses, 48 "
Of sheep, 15 "
Of poultry, 5 "
Of swine, 2 "
Of tools and implements for the farm, 43 entries.
Of mechanics, other than the above, 34 "
Of leather, &c., 12 "
Of seeds and vegetables, 72 "
Of fruit and fruit trees, 41 "
Of butter, cheese, sugar, bread, honey and flour, 31 entries.
Of domestic arts, 13 "
Of fancy and ornamental work, 34 "
Of flowers, paintings, drawings, &c., 20 "

Making a total of entries for premiums of 421.

The following is the awards of premiums with the reports of the

several examining committees as collected and prepared by the Secretary for publication in our county papers:

LIST OF PREMIUMS

Awarded at the annual fair of the Kent County Agricultural Society, held at the city of Grand Rapids, September 25th, 26th and 27th, A. D. 1855; also, remarks and suggestions of Judges:

SHORT HORN DURHAMS.

Best bull over 2 years of age, J. C. Hill, Fallassburg,..... $5 00

GRADES.

Best bull over 2 years of age, Porter Reed, Grand Rapids,.... $5 00
2d " " " Myron Roys, Wyoming,..... 3 00
Best yearling bull, H. H. Allen, Paris,..... 3 00
2d best " Geo. L. Knight, Walker,.....No Premium.
Best bull calf, A. Rogers, Vergennes,..... 2 00
2d best " F. D. Richmond, Grand Rapids,.....No Premium.
Best milch cow, J. C. Hill, Fallassburg,..... 5 00
2d best " D. S. Wooster, Flat River,.....No Premium.
Best 3 year old cow, F. Richmond, Grand Rapids,.....No Premium.
2d best " " " .....No Premium.
Best heifer under 3 years of age, J. F. Chubb, Grand Rapids,.. 3 00
2d best " " S. S. Bailey, Paris,..... 1 50
Best yearling heifer, J. C. Hill, Fallassburg,.....No Premium.
2d best " Porter Reed, Grand Rapids,.....No Premium.
Best heifer calf, J. C. Hill, Fallassburg,..... 2 00
2d best " Martin Freer, Grand Rapids,.....

The committee would make favorable mention of the two year old bull belonging to J. C. Hill. They think him worthy of competing with foreign stock, being a noble animal and showing good breeding.

S. B. SCRANTON,
JOHN ASHLEY,
HENRY GREEN,
Committee.

DEVONS.

Best yearling Bull, P. H. Prescott, Grand Rapids, ... $5 00
Best cow over 3 years old, D. S. Wooster, Flat River, ... 5 00
Best heifer under 3 years of age, J. C. Hill, Fallassburg, ... 3 00
2d best " " D. S. Wooster, Flat River, ... 1 50
Best calf, D. S. Wooster, Flat River, ... 2 00

The committee beg leave here to state that a yearling bull entered by John and George Ashley, also a cow and calf entered by L. K. Jenne, as pure Devons, in the opinion of the committee, are a cross with the Durham, but believe them to be very superior stock, and would recommend giving the following premiums, to wit:

Best yearling bull, J. & G. Ashley, Oakfield, ... $5 00
Best cow, L. K. Jenne, Grand Rapids, ... 3 00
Best calf, " " 2 00

NATIVES.

Best yoxe oxen, M. B. Anderson, Grand Rapids, ... $5 00
2d best " F. Chittenden, Grand Rapids, ... 4 00
Best yoke 3 year old steers, J. Hamilton, Grand Rapids, ... 4 00
2d best " " S. S. Bailey, Paris, ... 2 50
Best heifer 3 years old, G. Keeney, Grand Rapids, ... 3 00

O. H. FOOTE,
D. C. McVEAN,
Committee.

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HORSES.

Best stallion for all work, 4 years old or over, W. S. H. Welton, Grand Rapids, ... $5 00
Second best stallion for all work, 4 years old or over, C. C. Norton, Grand Rapids, ... 4 00
Best stallion under four years, Henry Green, Grattan, ... 4 00
2d best " " A. Hodges, Grand Rapids, ... 3 00
Best brood mare over four years with foal at her side, J. Naysmith, Grand Rapids, ... 5 00
Second best brood mare over four years with foal at her side, M. Hunting, Courtland, ... 4 00

Third best brood mare over 4 years with foal at her side, John Webster, Cascade, ... $3 00
Best mare for all work, David Meach, Paris, ... 4 00
Best mare 3 years old, E. G. Hogadon, Walker, ... 3 00
2d best " " Benj. Clark, Paris, ... 2 00
Best gelding 3 years old, David Meach, Paris, ... 4 00
2d best " O. H. Foote, Grand Rapids, ... 2 50

Benj. Clark exhibited a 3 year old grey colt, beautiful, not large, but of fine form.

Best colt 2 years old, L. F. & S. Chase, Cannonsburg, ... 3 00
2d best " " Amos Hodges Grand Rapids, ... 2 00
Best yearling colt, J. F. Chubb, Grand Rapids, ... 2 00
2d best " O. Van Buren " 1 50
Best colt, J. Naysmith, Grand Rapids, ... 1 50
2d best colt, Morgan Hunting, Courtland, ... 1 00
Best matched team 4 years old or over, Calvin Thompson, Courtland, ... 5 00
2d best matched team 4 years old or over, F. H. Cuming, Grand Rapids, ... 4 00
Best single horse, Wright, Grand Rapids, ... No premium offered.

Mr. Stoddard, of Ottawa, exhibited a fine mare and colt—very valuable animals and well worthy the owner; also a large and beautiful yearling colt of great promise, of the "Telegraph stock." There were also many fine single horses on the ground, of which the committee could make no disposition, there being no premiums offered for them. The judges on horses would respectfully suggest that the premium list on horses hereafter may be enlarged so as to embrace a greater variety of horses, which will allow many valuable horses to be entered, now entirely shut out from competition.

H. B. HOLBROOK,
SETH LOCKWOOD,
W. A. RICHMOND,
Committee.

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SHEEP.

Best Leicester buck, Guerdon Keeney, Grand Rapids, ... $3 00

2d best Leicester buck, Nathan Earle, Sparta,	$2 00
Best Saxon buck, F. D. Richmond, Grand Rapids,	4 00
Best Spanish buck, Sheldon Ashley, Oakfield,	4 00
Best French merino buck, J. W. B. Smith, Grattan,	4 00
Best 5 Spanish ewes, Sheldon Ashley, Oakfield,	4 00
2d best 5 " J. W. B. Smith, Grattan,	2 50
Best 5 Saxon ewes, F. D. Richmond, Grand Rapids,	4 00
Best Spanish buck lamb, Sheldon Ashley, Oakfield,	1 00
Best Leicester buck lamb, Nathan Earle, Sparta,	1 00
Best pen 5 Leicester lambs, Guerdon Keeney, Grand Rapids,	1 00
Best 5 grade ewe lambs, J. W. B. Smith, Grattan,	1 00

The committee would beg leave to state that the five Saxon ewes exhibited by F. D. Richmond, were no doubt pure blood, and are worthy of high commendation. The staple of the Saxon buck exhibited by F. D. Richmond, was long and fine, being all the previous year's growth. The buck is a fine animal and worthy the attention of wool-growers. Of the 5 Spanish ewes owned by Sheldon Ashley, they would say—heavy fleece—fine staple—a heavy fine style of carcass, being the stock of the old Quaker, Matthias Hutchinson, of Cayuga county, N. Y. They ought to command the attention of wool-growers. The Spanish buck of Sheldon Ashley is of the same stock—a splendid animal. Fleece exhibited on the ground, weight 10 lbs. 14 ounces. The Spanish ewes to which was awarded the second premium approached very near to those which were awarded the first premium. Nathan Earle exhibited 5 splendid animals of which there was but little choice. Guerdon Keeney had a fine show of Leicester lambs.

L. K. JENNE,
HIRAM RHODES,
NATHAN EARLE,
Committee.

—

SWINE.

Best boar 2 years old, H. B. Childs, Grand Rapids,	$2 00
Best sow 3 years old, " "	2 00

The committee have to regret that there should be so small a show

of animals so necessary to the use of man, and hope that in the future more attention will be given to them.

HIRAM RHODES,
NATHAN EARLE,
L. K. JENNE,
Committee.

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POULTRY.

The competition in fowls was very small—only two lots entered. The committee would award a premium to Wm. I. Blakeley, Grand Rapids,	$1 00
Best lot of ducks, Myron Roys, Wyoming,	1 00

There were exhibited two coops of Brahmas by W. S. H. Welton, of very desirable fowls, not entered for competition.

HENRY HALL,
A. PLATT,
Committee.

—

TOOLS AND IMPLEMENTS FOR THE FARM.

Best 2 horse wagon, David Aspinwall, Grand Rapids,	$3 00
2d best 2 " Wm. Graham, Courtland,	1 50
Best cultivator, Stone & Chubb, Grand Rapids,	75
Best subsoil plow, " "	1 50
Best sod plow (Curtis) " "	1 00
Best stubble plow, (Eagle,) Stone & Chubb, Grand Rapids,	1 00
Best harrow, " "	1 00
Best fanning mill, Renwick & Brother, Grand Rapids,	2 00
Best straw and stalk cutter, Stone & Chubb, Grand Rapids,	1 50
Best horse power, " "	3 00
Best seed planter, " "	1 00
Best clover and grass seed sower, " "	75

The committee would also notice favorable for premiums, the following articles not enumerated in the list of premiums:

A lightning rod, by J. T. Elliott.

Verticle hay press, by Stone & Chubb.

Dog power, "

Grain cradles, "

Alligator tooth, by S. B. Scranton.

This tooth was one of a number designed to be used on marshes for tearing down the bogs and making them smooth.

They would also make mention of a half dozen rakes, exhibited by John P. Weeks, of Grattan. They were a splendid article, but not entered soon enough to receive a premium.

M. C. WATKINS,
E. U. KNAPP,
JAS. DOCKERAY,
Committee.

MECHANICS.

Best 2 horse crriage, D. Aspinwall, Grand Rapids,	$5 00
Best and largest variety of cabinet work, Pullman & Brother, Grand Rapids,	5 00
Best fancy bedstead, Wm. Haldane, Grand Rapids,	1 00
Best bureau, only one exhibited, Wm. Haldane, Grand Rapids,	1 50
Best specimen of brick, O. H. Withey, Grand Rapids,	75
Best flour barrel, Chapin & Tolford, "	50
Best sample machine staves, A. Backus, "	25
Best panel door, H. H. Ives & Co., "	1 00
Best lot window sash, Kelly & Livingston, "	50
Best pair window blinds, " "	50
Best milk pails with strainer, Foster & Co., "	25
Best half-dozen milk pans, " "	25
Best six joints stove pipe, " "	50
Best cooking stove and furniture, (National,) Perkins & Co., Grand Rapids,	2 00
Best barrel plaster, with sample rock, E. B. Morgan & Co., Grand Rapids,	75

The committee noticed a very beautiful secretary, exhibited by Pullman & Brother, not entered for a premium, which is worthy of special notice.

The committee noticed a bevel plane, and a plane with eccentric roller, exhibited, by Ives & Brother, well worthy of notice by mechanics.

The committee deem the shingles exhibited by W. T. Powers, well manufactured, but one-eighth of an inch too thin to merit a premium.

There were four specimens of brick, all of superior quality.

The committee also noticed a lot of tin and copper work, from Perkins & Co., of a superior quality, but not entered for a premium.

They noticed also, a sample of window caps and sills, manufactured by G. M. McCray & Brother. They recommend builders to examine this article before purchasing elsewhere.

Also, a case of specimen teeth and dental instruments, by L. A. Rogers, very superior articles.

The committee noticed a specimen of composition roof put on by J. L. Wheeler. We recommend this roof to builders as fire-proof, cheap and substantial, so far as the committee are able to judge.

They noticed also, a lot of cigars, by Edward Mohl, and thought them worthy of a puff.

The committee noticed also a superior lot of guns; the one exhibited by Perkins & Co. appeared to be a superior article.

MARSHALL McCRAY,
WM. PULLMAN,
D. BURNETT,

Committee.

LEATHER.

Best set double fancy harness, Elijah Foote, Grand Rapids,	$2 00
Best single " Young & Booth, "	1 00
Best double harness for farm work, " "	1 00
Best three sides sole leather, Perkins, Woodward & Co., Grand Rapids,	75
Best three sides upper leather, Perkins, Woodward, & Co., Grand Rapids,	75
Best three sides calf skin, Perkins, Woodward & Co., Grand Rapids,	75

Best pair patent leather boots, Perkins, Woodward & Co., Grand Rapids, ... $0 75
Best pair thick boots, Perkins, Woodward & Co., Grand Rapids, ... 50
Best pair fine boots, M. Ringuett & Bro., ... 75
Best 2 pairs women's lace boots, " 50

The committee would state that although this department was not as well represented as they could wish, yet the articles exhibited were of superior quality, both in style and workmanship, especially the set of fancy harness manufactured by Elijah Foote, Canal steet ; also, the leather from the tannery of Perkins & Co. they regard as equal if not superior to the best eastern tanned leather, and would recommend those who may wish to purchase to call and examine their stock of leather.

W. W. HATCH,
H. H. ALLEN,
C. P. BABCOCK,
Committee.

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BUTTER, CHEESE, SUGAR, BREAD, HONEY AND FLOUR.

Best lot of butter, June and September, Myron Roys, Wyoming, ... $3 00
2d best lot of butter, June and September, G. M. Barker, Grand Rapids, ... 2 00
Best lot made in June, Myron Roys, Wyoming, ... 2 00
2d best lot " G. M. Barker, Grand Rapids, ... 1 00
Best lot made in September, Myron Roys, Wyoming, ... 2 00
2d best lot " G. M. Barker, Grand Rapids, ... 1 00
Best new cheese, Myron Roys, Wyoming, ... 1 00
2d best " J. C. Rogers, Grand Rapids, ... 75
Best sage cheese, H. H. Allen, Paris, ... 1 00
Best ten pounds maple sugar, grained, A. Loomis, Loomisville, 1 00
Best ten pounds maple sugar in loaf or cake, S. S. Bailey, Paris, 1 00
2d best " " " A Loomis, Loomisville, ... 75

Best 2 loaves wheaten household bread, Charles Barclay, Grand Rapids, ... $0 50
2d best 2 loaves wheaten household bread, O. Van Buren, Grand Rapids, ... 25
Best ten pounds honey, in box, S. S. Bailey, Paris, ... 75
Best barrel flour, (Soules wheat,) Chapin & Tolford, Flat River, 75
2d best " W. P. Collins, Grand Rapids, ... No Premium.
Best beehive for general use, (Longstrath's patent,) D. B. Martindale, Grand Rapids, ... 50

The committee would state that they found many other samples of butter so nearly equal that it was difficult to decide. The sample made in June retained the sweet, fresh flavor of new butter so well that the committee take the liberty of copying the recipe: "skim sweet if possible, keep the cream in tin pans well stirred, churn at from 60 ° to 63 °, rinse the buttermilk out and work out the water well, then add one ounce salt to the pound, set away in the cellar a few hours, then work and add one ounce of loaf sugar to every ten pounds."

Wheaten household bread was the only kind offered. Each sample was sweet and light enough to deserve the first premium. Only one box of honey was entered in time. There were two other samples that could not be beat. Specimens of bakers' bread and crackers were exhibited by Fulton & Co., not entered for a premium.

GEO. KENDALL,
MRS. CICERO POTTER,
Committee.

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DOMESTIC ARTS, &C.

Best piece rag carpet, George Antrim, Grand Rapids, ... $1 00
Best patch work quilt, Mrs. G. C. Nelson, " 50
Best pair ladies' cotton hose, Mrs. D. S. Wooster, Flat River, .. 25
Best specimen knitting, " " .. 50
Best tailor work by a female, " " .. 1 00

The committee, while they regret that there was not a more full exhibition of articles in this department, cannot forbear expressing their unqualified praise of the various specimens of rag carpet exhibited by

Mrs. A. Rathbone and Miss Galetta Spaulding, and by Mrs. Schermerhorn, each specimen being highly creditable to the skill and handiwork of the manufacturers.

The leather centre table, by Mrs. J. D. Lyon, the committee would mention as a specimen of superior beauty of design and great excellence of workmanship. They would make mention, also, of specimens of leather work exhibited by Mrs. D. S. T. Weller, and Miss M. E. Cuming, as being worthy of favorable consideration, and would recommend discretionary premiums, if the funds will admit.

CICERO POTTER,
Committee.

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FANCY AND ORNAMENTAL WORK.

Best worked collar, Mrs. J. D. Lyon, Grand Rapids,	$0 25
2d best " no premium, Mrs. L. E. Peck, Grand Rapids.	
Best white embroidered cape, " "	25
Best fancy quilt, Mrs. Martha Hewitt, Courtland,	50
Best crochet purse, Miss M. E. Cuming, Grand Rapids.	
Best chair tidy, D. Schermerhorn, Walker,	25
Best pair lamp mats, Mrs. J. D. Lyon, Grand Rapids,	25
Best specimen wax work, S. Miller, Grand Rapids,	50

Of shell work only one specimen, from the Enquirer office, was offered—not entered for a premium, but a neat specimen. The case of wax work, by S. Miller, was a fine case of fruit, and well worthy a premium. It deserves particular notice. Another specimen of fine fruit was on exhibition, from Hodenpyl's, but not entered for premium.

Another piece of embroidery the committee would especially notice, wrought by Mrs. J. W. Pierce. A beautiful specimen, and we regret that we cannot give her a premium; but as it was not made within the year, it can only be noticed and commended.

The committee notice also a piece of needle work from Mrs. Sapp; not entered for premium.

We notice also a case of books from the bookstore of J. Terhune.

Also two clocks, by N. T. Butler, deserve notice as fine specimens.

Also one specimen of writing in frame, containing the Lord's Prayer, giving different styles of penmanship, which is beautiful throughout.

The committee would make special mention of the velvet bound bible in the case of books belonging to J. Terhune, it being really beautiful. We commend it to the notice of all.

Also one silk scarf, by Miss Sumner, bears inspection well.

The committee would also make mention of the fine specimens of silk embroidery exhibited by Miss Pownell, who, we understand, designs teaching the art. There were two mantles, one of salmon color, which was beautiful, but not having been wrought here, of course no premium can be awarded. We would recommend the style and articles to the attention of the ladies.

Also a piece of worsted work, by Miss McCray, not entered for premium, but deserving it, a fine specimen.

Also a piece of worsted work, by Mrs. Jamieson. For that style it is well done. Miss Ferguson has also some fine specimens of the same kind.

One white merino talma, wrought with silk, coming in on Thursday morning, cannot receive the premium, although we consider it fully entitled to it. The work is from the hands of Mrs. N. Fiske, west side of the river.

MRS. P. R. L. PEIRCE,
MRS. G. S. DEAN,
MRS. A. H. BOTSFORD,
Committee.

PAINTINGS, DRAWINGS, DAGUERREOTYPES AND FLOWERS.

Best landscape painting in oil, by Miss Jennie S. Haldane, Grand Rapids, ... $1 00

Also, by the same young lady, figure of child with basket of flowers. Your committee take pleasure in commending the energy and persevering industry, as exhibited by the artist of these paintings, to others in this city and county, who may have enjoyed the opportunity of pursuing this art, in order that another annual fair may show much competition in this most beautiful of the fine arts. They also think the execution of this landscape reflects much credit upon the young lady and her teacher, and with continued application she will rank among our best artists.

Your committee would commend to the attention of the public a collection of paintings exhibited by Messrs. Pullman Brothers, viz.: Group of horses' heads; life size portrait of Napoleon I., and landscape. It shows a growing taste in fine arts to see the capital invested and energy put forth by these gentlemen, and hope they may meet with remuneration for this enterprise.

Best monochromatic drawing, Miss M. E. Cuming, Grand Rapids, ... $1 00

Your committee would also recommend a discretionary premium to Miss Maria Winslow, for a very fine drawing of the same kind. Also crayon drawing, by Miss Henry, received too late for competition, is commended by committee.

Best daguerreotype, O. W. Horton, ... $1 00

Your committee would also call the attention of the public to fine daguerreotypes by L. Buell and A. C. Alger, and recommend them as daguerreotypists of the first order.

Variety of articles exhibited by L. D'ooge: An assortment of wall paper, some beautiful patterns; also, variety of painted window shades, table oil cloths, &c. Your committee would also call the attention of those interested to Mr. D'ooge's fine assortment of tools and materials for artists.

Best and greatest variety of cultivated flowers, Mrs. G. C. Nelson, Grand Rapids, ... $1 00

Greatest variety of phloxes, Mrs. G. C. Nelson, Grand Rapids, 75

" petunias, " " 75

Hand bouquet, " " 75

Floral design. Your committee would commend this as a beautiful arrangement of autumnal berries and mosses, but not entitled to a premium as a design. Your committee also think Mr. Nelson deserves much attention for his successful Floraculture—the exhibition of which adds so much to this department of our fair, and would recommend his very extensive and beautiful gardens to any desiring to increase their collections of flowering plants, the culture of which add greatly to beautifying our residences, the attractions of our city, and happiness of our homes.

A beautiful collection of perpetual roses, from Mrs. George Kendall, was received too late for competition, but well worthy our highest commendation. Mr. Kendall has been very successful in the culture of roses, which he propagates mostly by budding—showing us that with little care and effort, all may have the enjoyment of these beautiful flowers at all times and seasons.

Also a collection of dahlias, by Dr. Platt, too late for competition, deserve the same notice from your committee.

MRS. DR. CUMING,
MRS. G. KENDALL,
MR. WM. PERKINS,
Committee.

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SEEDS, VEGETABLES, &C.

Best bushel wheat, J. T. Wheeler, Laphamville,	$2 00
Best 5 lbs. broom corn, J. S. Bailey, Paris,	50
Best trace yellow seed corn, G. W. Dickinson, Grand Rapids,	50
" white seed corn, G. M. Barker, Grand Rapids,	50
" dent " A. Thompson, Courtland,	50
" sweet corn, (common,) G. W. Dickinson, Grand Rapids,	50
Best and largest variety of culinary vegetables, W. I. Blakeley, Grand Rapids,	2 00
Best dozen turnip beets, T. Dean, Walker,	50
" sugar beets, H. Howell, Ada,	50
" parsneps, T. Dean, Walker,	50
" bagas, L. K. Jenne, Grand Rapids,	50
" turnips, L. K. Jenne, Grand Rapids,	50
Best half dozen cabbages, G. M. Barker, Grand Rapids,	50
Best peck of onions from seed, A. Loomis, Loomisville,	50
" " from sets, J. S. Bailey, Paris,	50
Best half bushel potatoes for family use, W. I. Blakeley, Grand Rapids,	50
Best half bushel potatoes for general use, W. I. Blakeley, Grand Rapids,	50
Best 10 stalks pie plant, W. I. Blakeley, Grand Rapids,	50

Best 3 pumpkins, E. U. Knapp, Grand Rapids,..... $0 50
Best mammoth squashes, A. Durfee, Grand Rapids,..... 50
Best winter squashes, T. Dean, Walker,..... 50
Best 3 watermelons, Seymour & Baldwin, Grand Rapids,..... 50

The committee were informed by Mr. Wheeler, that his wheat is the China variety, and suffered but little by the insects, while all other wheat raised by himself and neighbors was injured very materially.

Besides the articles entered for competition, the committee noticed a very fine lot of six varieties of potatoes, viz: White mercer, blue meshanics, bread, Carter, Mexican, and late kidney. Also a number of very large and beautiful squashes, from the garden of W. S. H. Welton. A few stalks of remarkable eared corn, and a sample of Rocky Mountain corn, deserve honorable mention. As they were not labeled, the committee were not aware by whom they were exhibited. One specimen of corn, they believe, by J. W. Sligh.

The committee take this opportunity to urge upon the farmers of Grand River Valley the importance of more extensively cultivating vegetables generally, and especially roots. The committee found only a single sample of carrots on exhibition, and they would recommend farmers to bring in for exhibition such articles as they have succeeded well in producing. This would make our fairs more interesting and instructive, reminding hundreds of our farmers that they too might have the advantages of growing such crops. A farmer remarked to the committee that he had raised oats weighing more than fifty pounds to the bushel. By bringing samples of such grain to our fairs, much would be done to improve our varieties, and render agriculture a much more lucrative and pleasant profession.

A. L. CHUBB,
F. A. MARSH,
Committee.

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FRUITS AND FRUIT TREES.

Best and greatest variety of autumn apples, Hiram Rhodes, Ada, $1 00
2d best " " Wm. O. Houghtaling, 75
Best and greatest variety of winter apples, Hiram Rhodes, Ada, 1 00

2d best and greatest variety of winter apples, T. Dean, Walker,	$0 75
Best and greatest variety of plums, G. M. Barker, Grand Rapids,	1 00
Best 6 varieties of peaches, Mrs. Houghtaling, Grand Rapids,	1 00
2d best 6 " D. Schermerhorn, Walker,	75
Best dozen summer apples, G. M. Barker, Grand Rapids,	50
Best dozen autumn apples, G. M. Barker, Grand Rapids,	50
" winter apples, W. O. Houghtaling, Grand Rapids,	50
" autumn pears, G. C. Nelson, Grand Rapids,	50
" quinces, J. W. Sligh, Grand Rapids,	50
" peaches, T. Dean, Walker,	50
Best 25 apple trees, G. C. Nelson, Grand Rapids,	2 00

Of the other kinds of fruit for which premiums had been offered, no specimens were exhibited. The committee, however, cannot close their report without expressing the great satisfaction they have had in the performance of the duty assigned them. All the articles submitted for their inspection, were worthy of being presented at a fair. The number of varieties of apples was very great, and many of the samples uncommonly large. They have never seen—they doubt if any one has seen—Rhode Island Greenings of such size as were many at this exhibition. And the same remark might be made of some other kinds. Thirty-eight varieties were produced by one gentleman—one of the best farmers and fruit-growers in the county. The following are the names of some of them: Baldwin, Swaar, Esopus Spitzenburg, Canada Red, Fall Pippin, Cayuga Red Streak, Beauty of Greece, Snow, Yellow Bell Fleur, Fall Greening, Orange Pippin, Herrick Seedling, Rhode Island Greening. Of plums, but two varieties were exhibited. They were, the Lombard, very large and of good flavor—and Purple Favorite, remarkably rich.

Of pears, the assortment was necessarily limited, it being too late in the season for the earlier, and too early for the best fall and winter fruit. Among the kinds submitted for examination, were the White Doyenne, Grey Doyenne, Colmar, Marie Louisa.

The samples of quinces were very fine. But what shall the committee say of peaches? The season was so far advanced that all the early choice varieties had disappeared. There had been an unusual amount of wet and cold weather, so adverse to fine flavor, and yet notwithstand-

ing all of these obstacles, the judges hesitate not to give as their opinion, that peaches to compare in size, in soundness, and in richness, were never yet exhibited at any fair. Of these too many were seedlings, no less than eight very fine varieties of the latter having been presented by one person. And here the judges deem it their duty also to state, that of seedling peaches, two specimens were exhibited, not, however, for competition; one by S. S. Bailey, and the other by George Kendall, of peculiar excellence; and that they must soon become favorites with peach growers. Among the kinds exhibited for premiums were Crawford, late Melacoton, Lemon Cling, and Mammoth Cling. In conclusion, the judges beg leave to add that the result of this exhibition has demonstrated that the Grand River Valley is *the* region of country not only for the finest of wheat, but for the finest of fruit, that can be cultivated in the temperate zone, and indeed for almost the finest of every thing that can strengthen and make glad the heart of man.

F. H. CUMING,
WM. I. BLAKELEY,
G. M. BARKER,
Committee.

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The President and Secretary, in accordance with the provisions of Act No. 18, of Session Laws of 1855, certified to the County Clerk of the raising of $400 by the Society for the encouragement of agriculture and its kindred arts, which certificate was laid before the Board of Supervisors of Kent county, at their annual session in October last. The Supervisors considered the subject, and very generously awarded the Agricultural Society the full benefit of the act, as will be seen by the following extract from their proceedings:

The committee to whom had been referred the petition of the officers of the Kent County Agricultural Society, submitted the following report:

To the Board of Supervisors of Kent county:

Your committee to whom was referred the matter of the petition of the Kent County Agricultural Society, beg leave to report:

That having given the subject due consideration, they have arrived at

the conclusion that this board should accord to the Kent County Agricultural Society the full benefit of the act under which they have made their application to this board.

This Society has maintained its organization for seven years, much of the time under adverse circumstances, striving to infuse a spirit amongst the people that should bring into action a more energetic life, by which the arts of agriculture, mechanics and manufactures in all their branches should receive a greater impetus, and one that shall give our county that position which its resources warrant. Cramped in means, the Society has not been able to carry out its great objects as fully as it has desired; and to the public eye it may have seemed to languish without effecting that amount of good it should have done. But its influence has been silently working its way in the minds of the people until they have become earnest for the advancement of the objects had in view by the Society, and which, as they grow, make the people happy and independent, elevating them in all that makes a nation noble and powerful.

The result of the fairs of the Society have fully exemplified the truth of this. But to be brief in our report, your committee therefore believe that the time has arrived which is most opportune to lend a helping hand, and the sooner bring our county to that position which the public must acknowledge as first in the State, and a position in point of wealth that all may be proud of—a high agricultural and mechanical one.

Your committee, therefore, recommend the passage of the following resolutions:

Resolved, That this Board of Supervisors appropriate for the benefit and use of the Kent County Agricultural Society, five hundred and seventy-six dollars and thirty-six cents, it being one-tenth of one mill tax on the dollar on the assessment roll of Kent county, for the year 1855.

Resolved, That the said sum of $576 36 shall be expended by the said Agricultural Society, as follows, to wit: A sum not to exceed one-half thereof to liquidate the indebtedness of the Society, incurred in the preparation of grounds, &c., for its recent fair, and the premiums awarded thereat. The balance to be applied as the Society shall select, on a purchase of permanent grounds, to be owned and held by the Society for its legitimate use, or in the purchase of agricultural, horticul-

tural, mechanical, and other suitable books and periodicals, to be distributed as premiums at its next annual fair, in 1856.

Resolved, That the said $576 36 shall remain in the Treasury of Kent county in trust for said Agricultural Society, and shall be paid by the Treasurer of Kent county to the Treasurer of the said Agricultural Society, or his order, on the order of the Secretary of the Kent County Agricultural Society, countersigned by the President thereof.

Resolved, That it shall be the duty of the Secretary and Treasurer of the said Agricultural Society to report to this board at its next annual session, the disposition made of this money by the Society, specifying the objects to which the several amounts drawn have been applied, together with such other matter as they may think interesting to the board.

T. E. WETMORE,
JOHN B. COLTON.

On motion of Mr. Chubb,

The report and resolutions were adopted unanimously.

Feeling inspirited by the pleasing success of the Society's earnest efforts thus far, the new board of officers felt cheered to go forward and attempt on their part to advance the Society still farther on, to add to it a renewed impetus that should for its eighth year make it advance still more wonderfully in the cause of progress and improvement.

A meeting of the executive committee was called November 17th, and the propriety of organizing under the act of incorporation passed by our last Legislature fully discussed, when the committee determined to perfect such organization, and the Secretary ordered to draft articles of association for consideration at the December meeting. A committee was also appointed to advertise for and receive proposals for the purchase of show grounds for the Society's use.

At the meeting of the committee, Dec. 27, the re-organization of the Society was perfected, as will be seen by the following report of that meeting, as also the receipts and disbursements of the Society for the fiscal year now closed. We take the report as furnished the county papers by the Secretary:

PROCEEDINGS OF THE KENT COUNTY AGRICULTURAL SOCIETY.

At a meeting of the executive committee of the Kent County Agricultural Society, held at the store of W. S. H. Welton & Co., on Dec.

27th, 1855, pursuant to notice, there were present the officers and executive committee, with the exception of most of the Vice Presidents. The Secretary having stated the proceedings held at the last meeting of the committee, reported articles of association under the act of incorporation, for the consideration of the committee, which articles were unanimously adopted, and duplicate copies signed and acknowledged before F. D. Boardman, Esq., a Notary Public of Kent county, for filing with the County Clerk and the Secretary of the State Agricultural Society. The Secretary reported a series of by-laws, which was also unanimously adopted by the committee.

The committee appointed to advertise for and receive proposals for show grounds, reported that they had received several proposals, and deeming that made by Jacob W. Winsor, as the most advantageous, both in location and adaptation of the grounds for the uses of the Society, as well as the favorable terms of payment, had accepted the same at $100 per acre, for 34 acres, or thereabouts, located just out of the city limits, and near the plank road. The report was accepted, and the action of the committee adopted. Messrs. Welton, Chubb and Wetmore were appointed a committee to examine into the title, and perfect the same for the Society.

The Treasurer made his report of the state of the finances, which was accepted and adopted.

The following bills were audited and allowed:

To W. S. H. Welton & Co., for materials and work on fair ground,	$61 30
To Ives & Martindale, for labor,	8 00
To W. S. H. Welton, for materials and labor,	4 62
To J. Barns & Co., printing and advertising,	24 75
To A. E. Gordon, " "	6 00
To A. B. Turner, " "	2 00

and orders voted to be drawn for the same.

A bill for hay, from J. McConnell, of $6, was passed to the President for settlement with Mr. McConnell, by offsetting pasturage and use of show grounds.

Messrs. Welton, Fitch and Barker were appointed a committee to report a premium list to the board at its next meeting, for its ensuing annual fair.

The President was appointed a committee to correspond with Dr. Goadby, and endeavor to secure a course of lectures by him, to be delivered at this place, under the auspices of this Society, at some time during the winter.

It was ordered that $400 of the fund from the county be applied on first payment of purchase of show grounds.

No entries having been made for premiums on farm crops, and no further business appearing before the executive board, the meeting was adjourned to the second Monday in March, 1856, at 1 o'clock P. M.

The Secretary would here add, that from the Treasurer's report, and from accounts audited, it appears that the Society has received funds, during the fiscal year now closed, as follows, to wit:

For memberships, entrance fees, and rent from refreshment stands,	$559 41
Amount voted by Board of Supervisors for Society,	576 36
Retail profits on premium books,	26 15
Total,	$1,161 92

The expenses incurred, for the same time, have been:

For lumber and posts, to fence show grounds, &c.,	$243 98
" labor in grubbing and grading the grounds and building fence, &c.,	134 74
" police and gate tending,	22 50
" Secretary's expenses, services, clerk hire, &c.,	45 00
" blank books and Treasurer's box,	6 89
" printing show bills, tickets, and advertising,	22 75
" books at wholesale price, to pay part premiums,	51 60
" payment of premiums,	263 25
" amount of premiums yet unpaid,	20 25
Making a total of expenses of	$820 91

Which, after the payment of $400 on purchase of grounds, and the payment of outstanding premiums, will leave indebtedness of the Society, $79 24.

The executive board, when they feared—from the necessarily large and unusual expenses incurred by the fitting up of the new show grounds—to have a large indebtedness left upon their hands, are cheered

to find the balance against the Society so small. These grounds the Society can possess for a term of years, and hence the annual expense of maintaining them will be trifling, so that hereafter the bright prospects that are opening on the Society, will certainly insure them such an amount of funds as will leave them unembarrassed, and give them room to much enlarge the premium list, and in the meantime, give the Society means to go forward with improvements on their own grounds.

The executive board would also take this opportunity to most heartily thank the public for the substantial and generous response they have awarded to the efforts of the board, and they assure the public that they feel their zeal renewed, to go forward and do all in their power to advance the true interests which the Society cherishes for the promotion of their objects, and they feel assured that the Kent County Agricultural Society is to take rank as second to none in the State, if not in the Union.

The board regret that a larger number of the Vice Presidents could not have been in attendance at the re-organization of the Society. The board desire that the officers under the new order shall be the same as heretofore, hence the board have not filled the office of Counsellors, (Vice Presidents.)

An attendance from the several towns is earnestly invited at the next meeting, so that these offices may be filled.

T. E. WETMORE,
Secretary Kent Co. Ag'l Society.

Grand Rapids, Dec. 28th, 1855.

ARTICLES OF ASSOCIATION of the Kent County Agricultural Society, adopted Dec. 27, 1855.

Art. 1. W. S. H. Welton, J. W. B. Smith, T. E. Wetmore, J. F. Chubb, G. M. Barker, Andrew Loomis, S. S. Bailey, G. C. Fitch, L. K. Jenne, B. B. Church, J. C. Rogers, together with such others as may hereafter associate with them, and their successors, are hereby organized under Act 80 of Session Laws of 1855, into a Society for the advancement of Agriculture and Horticulture, Manufactures, Mechanic and Domestic Arts.

ART. 2. The name of this Society shall be known and designated as the Kent County Agricultural Society, whose object shall be the promotion of agriculture and all its kindred arts.

ART. 3. Its officers shall be a President, a Vice President, a Secretary, a Treasurer, five Trustees, and a Counsellor from each town represented with members in the Society. These officers together shall constitute the Executive Board, vested with full powers to conduct the affairs and transact the business of the Society, any five of whom shall constitute a quorum for the transaction of business.

ART. 4. The annual meeting of the Executive Board shall be held on the 2d Monday of December in each years, at which time the officers shall make their several reports, which time shall also be the closing up of the Society's fiscal year.

ART. 5. The annual election of officers shall be public, and shall take place on the last day of the annual fair; the time and place to be designated on the annual premium list and show bill. The officers so elected, having accepted and duly qualified, shall enter upon the discharge of their duties immediately after the adjournment of the annual meeting of the Executive Board, and the retiring officers shall then respectively deliver to the incoming officers the books, papers, moneys and other property belonging to their offices or held by them in trust.

ART. 6. The following named persons shall be the officers of this Society for the present fiscal year, viz.: W. S. H. Welton, *President;* J. W. B. Smith, *Vice President;* T. E. Wetmore, *Secretary;* J. F. Chubb, *Treasurer;* G. C. Fitch, Andrew Loomis, L. K. Jenne, S. S. Bailey and G. M. Barker, *Trustees;* B. B. Church of Grand Rapids City, and J. Rogers of Wyoming, *Counsellors.*

ART. 7. The Executive Board shall have the power to fill any vacancy that may occur in their body.

ART. 8. The annual payment of one dollar and the subscribing to these Articles shall constitute any resident of Kent county a member of this Society.

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BY-LAWS of the Kent County Agricultural Society, adopted December 27, 1855.

ART. 1. The President shall preside at all meetings of the Execu-

tive Board or of the Society, countersign orders on the Treasurer, and do such other duties as generally appertain to such office or which may be imposed by the Executive Board.

ART. 2. The Vice President shall assist the President in the discharge of his duties, which duties shall fully devolve upon him in the absence or disability of the President.

ART. 3. The Secretary shall keep the records of the Society; do its general correspondence; have the charge of all books, papers and other property of the Society not properly belonging to the charge of other officers; receive moneys, &c., for the Society on membership, for entrance fees, &c., and pay the same over to the Treasurer, with whom he shall keep a strict account; draw orders on the Treasurer for the payment of premiums awarded, or accounts audited by the Executive Board; make out the annual report for the State Society, and do such other duties as appertain to the office or that may be imposed by the Executive Board.

ART. 4. The Treasurer shall keep all moneys and all books or plates, &c., designed by the Society for the payment of premiums, and pay the same out only upon the order of the Secretary, countersigned by the President, and report at the annual meeting in December his receipts and disbursements in full by items.

ART. 5. Before entering upon their duties both the Treasurer and the Secretary shall give bonds in such an amount and with such sureties as the Executive Board shall decide, conditioned for the faithful performance of their duties.

ART. 6. The Trustees shall be the special advisers of the other officers, and to this end it shall be their duty to be faithful and prompt in attendance at all meetings of the Executive Board and of the Society.

ART. 7. The Counsellors shall also be the advisers of the other officers, and have an equal voice in the affairs of the Society. It shall also be their special duty, in their respective townships, to advance the interests of the Society by all laudable means in their power.

ART. 8. The Secretary shall keep a book of membership, in which shall be transcribed the Articles of Association and By-Laws, and to which all persons becoming members shall subscribe their names, together with the name of their township and post office address. He shall also keep a book of entries, in which shall be entered a brief description

of all articles entered for competition or exhibition at the fairs or shows of the Society, together with the names of the persons entering the same, with their township, residence and post office address.

ART. 9 Members of the Society who have paid their annual fee shall be entitled, with their wives and members of their families under 18 years of age, to all the privileges of the Society at its fairs, shows, &c., without the payment of any other sum of money.

ART. 10. None but members of the Society with their families as designated in Art. 9, shall be allowed to compete for premiums at its fairs and shows. Such as are not members of the Society who wish to enter articles for exhibition only, can do so upon the payment of an entrance fee of fifty cents.

ART. 11. Entrance tickets to admit spectators, not members, to the fairs and shows of the Society, may be sold at a price not less than fifteen nor to exceed twenty-five cents, as the Executive Board shall decide from year to year in their rules and regulations to govern the proceedings of such shows or fairs.

ART. 12. All special meetings of the Executive Board shall be called by the Secretary and President, by giving at least three weeks notice in one or more of the public newspapers of the county, stating time, place and object of the meeting.

ART. 13. The regular business meetings of the Executive Board shall be held quarterly, on the 2d Monday in March, June, September, and December of each year.

ART. 14. The order of business at the regular meetings shall be:

1st. Reading and adoption of minutes of previous meeting.

2d. The consideration of any unfinished business that may appear on the minutes.

3d. Reports of officers or of standing committees.

4th. Reports of special committees.

5th. Consideration of business previously made the special order.

6th. Miscellaneous business, which will include action upon reports of officers or committees.

Rules of debate applicable to legislative bodies shall govern at the meetings of the executive board.

ART. 15. At the first regular meeting of each fiscal year, the Pres-

ident shall appoint standing committees on finance and accounts, of three members each.

Art. 16. The committee on finance shall have a general oversight of the financial affairs of the Society, and may report from time to time such matters for the consideration of the executive board as they shall think the prosperity of the Society demands. This committee shall, at any reasonable time, have free access to the books of the Secretary and Treasurer, and shall, in conjunction with these officers, at the annual meeting of the executive board, report upon the financial condition, present and prospective, of the Society.

Art. 17. The committee on accounts will first examine into all accounts or claims against the Society, and report to the executive board whether the same are just and equitable, when the board shall proceed to act upon the same as they shall deem proper.

Art. 18. The President, Secretary and Treasurer shall be a standing committee on grounds, to have general care and oversight of the same, and vested with power, when they shall deem it for the interest of the Society, to rent the same, or any portion thereof, for such purposes and for such short periods of time as shall not interfere with the objects and uses of the Society.

Art. 19. It is the aim of this Society, in the advancement of its objects, to collect as fast as its means and circumstances will warrant, and maintain a library of such works, books and periodicals, as shall help to elucidate agriculture and its kindred arts, which library shall be for the use and benefit of the members of this Society, under such rules and regulations as shall hereafter be adopted.

Art. 20. For the more perfect elucidation of agriculture and its kindred arts, as a help for comparison, and as a greater incentive to progress, it is also the aim of this Society to collect and preserve a museum of grains, plants, specimens of minerals, rocks, models of fruit and machinery, implements, &c., particularly of the productions of Kent county, which museum shall be of free access to all members of this Society, under such rules and regulations as may hereafter be adopted.

Art. 21. This Society will accept and receive for gratuitous distribution, any choice or rare seeds, roots, cuttings or scions, and will distribute them in parcels to such friends of the improvement as will engage to thoroughly test their qualities, and report in writing to the Secretary,

previous to the first day of December next following their trials, the results in detail, whether good, bad, or indifferent.

ART. 22. All persons to whom premiums may have been awarded at any annual fair or other show of the Society, must apply to the Secretary for orders on the Treasurer for the amounts, previous to the annual meeting of the executive board, otherwise the amounts will be considered as donated to the Society. Persons to whom premiums may be awarded at the annual meeting must apply for the same within three months, or the amount will be considered donated to the Society.

ART. 23. These by-laws may be altered, amended, or added to, at any regular business meeting, provided the proposed alteration, amendment or addition, shall have been submitted in writing at the last previous regular meeting, and the same be adopted by two-thirds of those present.

Our new purchase for fair grounds is very eligibly situated and well adapted for the purpose, having on it a fine natural grove, and though not watered by a stream, water can be readily obtained by digging. The soil, too, is favorable for such uses, and the plat can be made a beautiful one, with comparatively a small outlay. The one which we are now occupying, through the generosity of the Hon. H. L. Ellsworth, of Indiana, can be used a few years by the Society, which will be a material help, and aid us in beautifying our own grounds as our means will allow. When the railroads shall reach us, which are sure to be built ere long, we anticipate the pleasure of welcoming the State Society to a fair on the grounds of the Kent County Society. Our conveniences and our location will be then such as will make the matter desirable for the State Society.

I have delayed this report considerably, anticipating an article for it on the gypsum deposits of our county, and the manufacture of plaster. It is with much regret that I must forward this to you without the promised essay. I shall go again to the city ere long, and will make another effort, and perhaps furnish you with a supplemental report.

That our gypsum deposit is inexhaustible, every year is proving more and more clearly. There are now six mills running day and night, and the number may be indefinitely increased. The deposit, I understand,

is many feet thick, some 15 to 20, and in places crops out. This, I believe, is particularly the case in some of the bluffs on the west side of the river, where the plaster rock is excavated from the side of the hills, giving a natural and constant drainage, without resort to pumping. What amount of plaster has been manufactured for the year 1855, I have no data at hand for even guessing. That quite a quantity of it must have been ground, may be inferred from the fact that during the present run of excellent sleighing, an average of 300 tons has been sold and taken away daily. Teams laden with corn and pork, come even from Indiana for this mineral manure. This, of course, makes trade brisk, and furnishes a greater amount of food and feed for the lumbermen and their teams, in the northern part of our county and the adjoining regions.

Gypsum, too, is coming into use among us as a building material, particularly for fronts, and a most beautiful, variegated and polished surface it gives, exceeding in these respects the most costly marble. It is readily fitted, or shaped, with a common hand-saw, or other instruments, according as the desired surface be plain or otherwise. It is polished readily, and well oiled, when it is believed it will stand well the influences of the atmosphere. It has been observed that where pieces of it have lain exposed at the quarries for several years, they harden and consolidate, from which fact it is believed it will prove a substantial material. With some, there is a doubt as to its capability of withstanding a heavy pressure. As to this, time must determine. The two buildings already erected and faced with this material, thus far give so good satisfaction that more are contemplated for the coming season. Certain it is that for beauty and finish no other material can compare with it. When the railroads shall reach Grand Rapids, and open up facilities for the transportation of our gypsum and plaster, and which also makes the best of stucco, so that its cost will be cheapened to its distant consumers, our gypsum deposits must prove a mine of wealth to Kent county, unapproached by the auriferous deposits of California.

Then again, our salt deposits, I have faith to believe, when ample means and thorough experience shall take hold of the matter and probe the earth to the depth that geological research indicates the saline deposit to exist in its greatest purity, will prove second only, if not equal to the great Onondaga salines. The efforts which were made years

ago, and which bored the earth to only about half the proper distance, gave quite satisfactory results; results that argue strongly for the renewal of efforts to fully test the matter.

The times now are far more auspicious, and the means of marketing the commodity and of readily supplying a large extent of territory will soon be ample, and capital must seek investment in that which holds out so strong inducements of rich rewards.

The last census returns gave the amount of lumber manufactured in the county at 13,650,000 feet. Since then the increase has been rapid. The water-power of the Rouge and its tributaries has, alone, within the past year turned out an amount almost equal to this, and it is within the bounds of truth to say that not less than 20,000,000 feet of lumber have been manufactured within the county for 1855, and this amount does not include the amount of lath, picket, sash stuff and shingles manufactured. Thus it will be seen that the lumber interests of our county is no small means of wealth. It affords a good home market for all our coarse products, at prices higher than are obtained in other portions of the State more favored, perhaps, in other respects. Thus it is very rarely our corn brings us less than five shillings a bushel, and oats four shillings. The minimum price of marsh hay is $5 and $6 a ton. Timothy and clover, $10 and $12. Potatoes, usually three shillings. Butter, except in midsummer, commands from nineteen to twenty-five cents, and other things in proportion.

A word on our crops for 1855 may not be out of place. Although in the main we had an unusually wet season, yet, particularly at harvest time, we did not suffer from the drenching rains that visited the southern portion of our State, and regions elsewhere. Our harvest was rather catching, but our wheat was secured in good condition. The crop was seriously affected by the ravages of the Hessian fly both in the spring and autumn previous. It is rather noticeable that in the timbered portions of our county, the fly was scarcely felt, in some towns not at all, while on opening lands it ravaged with more or less severity, not showing much difference, so far as my own observations extended, between light and heavy soils. The aggregate of the crop was full up to, if not exceeding an average. In the timbered portions of the county the crop was an unusually heavy one. Hay was much heavier than usual. This was particularly the case with the second crop of

clover. Considerable of the crop was, however, injured in quality by the frequent wettings it received before it was fully cured for housing. The best of our weather was at and about harvest time. Oats were unusually good. Corn, also, was better than an average. Buckwheat and millet, too, were unusually excellent. Potatoes were planted in great abundance, and gave large yields. In some localities, particularly on tenacious soils, or highly manured ones, and more especially with late planted ones, the rot prevailed. The prices have ruled lower than for several years previous. Two shillings was the fall price. Now they command three. Owing to the ravages of the fly, wheat was sown much later than usual. However, I think its ravages were not so serious, even in the earliest sown fields, as the previous autumn. Generally, considering the time of sowing, our wheat came into winter quarters in good condition.

TIMOTHY E. WETMORE,

Secretary Kent Co. Agricultural Society.

North Cameron, Kent Co., Mich., January 28, 1856.

PROCEEDINGS OF THE KENT COUNTY AGRICULTURAL SOCIETY.

The Executive Board met on the 10th inst., at the store of W. S. H. Welton & Co., at 1 o'clock P. M.

Present, a goodly number, among which the utmost good feeling prevailed. After the reading and adoption of the minutes of last meeting, the Board proceeded to fill the corps of Counsellors, when the following persons were appointed:

Hiram Rhodes, Ada; John Colton, Alpine; Smith Lapham, Algoma; D. C. McVean, Bowne; P. D. McNaughton, Caledonia; Seth Lockwood, Courtland; James Dockeray, Cannon; H. H. Holt, Cascade; Wm. Hendrick, Gaines; L. S. Scranton, Gratton; O. H. Foote, Grand Rapids city; Kendall Woodward, Grand Rapids town; Sheldon Ashley, Oakfield; Henry Seymour, Paris; Wm. M. Wylie, Sparta; H. C. Jackson, Tyrone; Henry Hall, Plainfield; A. R. Hoag, Vergennes; Geo. L. Knight, Walker.

The Secretary reported additional by-laws, which, on motion, were adopted.

The President was ordered to procure a seal, with some appropriate device thereon, for the Society.

Messrs. Welton and Foote were appointed a Committee to procure a speaker for the next annual fair.

Mr. Bailey offered a resolution authorizing the President, Secretary and Treasurer, to sign any papers, or do any other acts necessary to vest the full title in the Society, to the land purchased of J. W. Winser—which was adopted.

It was determined to hold the 8th annual fair on the 14th, 15th and 16th days of October next.

The bonds of the Secretary and Treasurer were fixed by the Board at $1,000 each.

The President appointed Messrs. Fitch, Barker and Foote, a standing committee on finance; also, Messrs. Bailey, Barker and Wetmore, a standing committee on accounts.

The appointment of viewing committees was made the special order for the next regular meeting.

The committee on the premium list reported a full list, with regulations and rules, which report, after a full discussion, was adopted with some amendments and alterations.

The meeting adjourned to the second Monday in June, at 1 o'clock P. M.

T. E. WETMORE,
Secretary.

LIVINGSTON COUNTY.

LIST OF PREMIUMS,

Awarded at the 3d annual fair of the Livingston County Agricultural Society, held at Howell, on Wednesday, Thursday and Friday, October 10th, 11th and 12th, 1855:

CLASS I.—FARM AND FIELD CROPS.

Best conducted farm, not less than 200 acres, Joseph Rider, Jr., Stephens' Book of the Farm and $6 00

2d best conducted farm, not less than 200 acres, E. J. Hardy, Stephens' Book of the Farm and 4 00

3d best conducted farm, not less than 200 acres, Alva Preston, American Farm Book and 2 00

Best conducted farm not less than 40 acres, James M. Murray, Stephens' Book of the Farm and 6 00

2d best conducted farm, not less than 40 acres, J. R. Sage, Stephens' Book of the Farm and 4 00

3d best conducted farm not less than 40 acres, Myron Curdy, American Farm Book and 2 00

Favorably noticed of farms of 200 and upwards, W. Sexton, J. W. Botsford. For the farms of 40 acres and upwards, F. Monroe, ...

For the best improved tamarack swamp, quality and quantity considered, Joseph Rider, Jr., American Farm Book and .. 5 00

P. H. Sexton, ... Discretionary Premium.

L. E. Beach, ... do.

John Jones, ... do.

Best 3 acres of corn, Lester Curtis, Chemical Field Lectures and $2 00

2d best 3 acres of corn, James M. Murray, Essay on Manures and 2 00

3d best 3 acres of corn, J. R. Sage, Pest of the Farm and 1 00

Best half acre of potatoes, Jonathan Austin, American Farm Book and 1 00

2d best half acre potatoes, Lester Curtis, ... American Farm Book.

Best half acre ruta bagas, Morris Bennett, American Farm Book and 1 00

Best 3 acres of oats, R. H. Bennett, Transactions State Agricultural Society and 1 00

R. Smock, discretionary premium on corn, ... 1 00

J. L. Wing, surface planting potatoes, ... Discretionary Premium.

CLASS II.—HORSES FOR ALL WORK.

Best stallion 3 years old or over, E. J. Hardy and others, Youatt on the Horse and $3 00

2d best stallion 3 years old or over, J. B. Wing, Youatt on the Horse and 1 50

3d best stallion 3 years old or over, H. G. Love, .. Youatt on the Horse.

Best brood mare, H. H. Norton, Dis. of Domestic Animals and 3 00

2d best " S. G. Ives, " " and 1 50

3d best " J. R. Sage, ... Youatt on the Horse.

Best horse colt 2 years old, Ed. Latison, Mason's Farrier and 2 00

2d best " 2 " C. R. Wesley, Mason's Farrier and 1 00

3d best " 2 " H. H. Norton, ... Mason's Farrier.

Best mare colt 2 years old, I. & J. F. Jennings, The Horse, Origin, &c., and 2 00

2d best mare colt 2 years old, C. L. & R. Crouse, The Horse, Origin, &c., and 1 00

3d best mare colt 2 years old, J. M. Murray, ... The Horse, Origin, &c.

Best horse colt 1 year old, H. H. Norton, ... 2 00

2d best " 1 " C. L. & R Crouse, ... 1 50

3d best " 1 " Jonathan Austin, ... 1 00

Best mare colt 1 year old, W. P. Whitaker, ... 2 00

Best brood mare and last 3 colts by her side, W. C. Shaft, Farmer at Home and 5 00

2d best brood mare and last 3 colts by her side, H. Griswold, Farmer at Home and $1 50

3d best brood mare and last 3 colts by her side, G. McDowell, ... Farmer at Home.

Best sucking colt, J. Chamberlin, ... 1 50

2d best " Frank Whipple, ... 1 00

CLASS III.—MATCHED AND SINGLE HORSES.

Best pair matched horses, A. Tooley, ... $5 00

2d best pair " D. Jackson, ... 4 00

3d " " S. G. Ives, ... 3 00

Best pair matched colts 3 years old, W. Lewis, ... 3 00

2d best pair " 3 " Warren Chase, ... 2 00

3d " " 3 " W. A. Barnard, ... 1 00

Best single horse, S. Pullen, ... 3 00

2 best " S. B. Sliter. 2 00

Draft horse, L. Judson, discretionary premium, ... 2 00

CLASS IV.—BLOOD HORSES.

Best stallion 3 years old or over, John Muir, Youatt on the Horse and 3 00

2d best stallion 3 years old, W. C. Shaft, Youatt on the Horse and 1 50

Best brood mare, W. C. Shaft, Dis. of Domestic Animals and .. 3 00

Best stud colt 2 years old, W. C. Shaft, Mason's Farrier and .. 2 00

Best mare colt 2 years old, John Davis, The Horse, Origin, &c., and 2 00

Best colt not more than 8 months old, D. Kellogg, ... 1 00

2d best colt not more than 8 months old, W. C. Shaft, ... 1 00

Best stud colt 1 year old, W. L. Wells, discretionary premium. 2 00

2d best " 1 " R. Bingham, Jr., " 1 50

Best mare colt 1 year old, H. H. Norton, " 2 00

CLASS V.—NEAT CATTLE—SHORT HORNS.

Best bull 3 years old or over, P. L. Smith, Youatt & Martin on Cattle and $2 00

Best bull 1 year old, H. G. Love, Blake's Farmer at Home and 50

CLASS VI.—DEVONS.

Best 3 year old bull, G. H. Switzer & Co., Youatt & Martin on Cattle and 1 00
Best 2 year old bull, D. B. Powers, Youatt & Martin on Cattle and 50
Best yearling bull, J. R. Sage, Blake's Farmer at Home and .. 25
Best cow 3 years old or over, D. B. Powers, Johnson's Agricultural Chemistry and 50
Best yearling heifer, D. B. Powers, ... Youatt & Martin on Cattle.

CLASS VII.—CROSS OF BLOOD CATTLE.

Best bull 3 years old, T. B. Brooks, Youatt & Martin on Cattle and $2 00
2d best bull 3 years old R. H. Bennett, Youatt & Martin on Cattle and 1 00
Best bull 2 years old, D. Case, Youatt & Martin on Cattle and 1 00
Best bull 1 year old, A. Wakeman, Blake's Farmer at Home and 50
Best 3 year old heifer, A. Wakeman, Johnson's Agricultural Chemistry and 1 00

CLASS VIII.—NEAT CATTLE—GRADES.

Best bull 3 years old, V. R. Durfee, Youatt & Martin on Cattle and $1 00
Best 2 year old bull, J. Root, Youatt & Martin on Cattle and .. 50
Best 1 year old bull, L. E. Beach, Blake's Farmer at Home and 25
Best bull calf, E. Barnard, ... 50
Best cow 3 years old, E. Barnard, Johnson's Agricultural Chemistry and 50
2d best cow 3 years old, L. Boutwell, Johnson's Agricultural Chemistry.
Best 2 year old heifer, C. L. & R. Crouse, Practical Agriculturist and 50
Best yearling heifer, C. L. & R. Crouse, ... Youatt & Martin on Cattle.
2d best " L. E. Beach, Jr., ... 50

CLASS IX.—WORKING OXEN, FAT CATTLE AND STEERS.

Best pair working oxen 4 years old and over, E. Luther, Cattle Doctor and $4 00
2d best pair working oxen 4 years old and over, P. L. Smith, Cattle Doctor and 2 00
3d best pair working oxen 4 years old and over, S. N. Whitcomb, Cattle Doctor and 1 00
Best pair 2 year old steers, C. L. & R. Crouse, Pro. Farmer and 2 00
Best pair fat cattle, E. Luther, drew premium as best working oxen.
2d best pair " J. W. Bottsford, ... 3 00
Best fatted beef creature, W. Chase, ... 4 00

CLASS X.—FIRST VARIETY, PURE BLOOD SPANISH SHEEP.

Best buck 2 years old, L. C. Crittenden, Youatt on Sheep and $1 00
" 1 year old, " 1 00
Best pen 3 ewes, L. C. Crittenden, Diseases of Domestic Animals and 2 00

CLASS XI.—FIRST VARIETY, FRENCH SHEEP, PURE BLOOD.

Best buck 3 years old or over, P. Brewer, Sheep Husbandry and $2 00
2d best buck 3 year or over, F. Monroe, Canfield on Sheep and 1 00
Best buck 1 year old, S. W. Twitchell, Youatt on Sheep and .. 1 00
Best ewe 1 year old, S. W. Twitchell, ... No premium offered.

CLASS XII.—SECOND VARIETY, CROSS OF PURE BLOOD.

Best 3 year old buck, W. C. Shaft, Sheep Husbandry and ... $2 00
2d best 3 year old buck, D. Case, Canfield on Sheep and 1 00
Best 2 year old buck, E. F. Burt, Youatt on Sheep and 1 00
2d best 2 year old buck, W. C. Shaft, ... Youatt on Sheep.
Best yearling buck, P. Barnard, Youatt on Sheep and 1 00
2d best " J. W. Bottsford, ... Youatt on Sheep.
Best pen 5 buck lambs, N. Lake, Sheep Husbandry and 2 00
Best pen 3 ewes, E. F. Burt, Diseases of Domestic Animals and 2 00
Best pen 5 ewe lambs, J. W. Bottsford, Canfield on Sheep and 1 00
2d best pen 5 ewe lambs, N. Lake, ... 1 00

CLASS XIII.—GRADE SHEEP.

Best buck 2 years old, P. Brewer, Youatt on Sheep and..... $0 50
Pen 5 best ewe lambs, J. Rumsey, Progressive Farmer and... 50
Pen 5 best buck lambs, J. Rumsey, Canfield on Sheep and... 50

CLASS XIV.—LONG WOOL AND MUTTON SHEEP.

Pen best 5 fat sheep, L. Curtis, Practical Agriculture and.... $2 00

CLASS XV.—SWINE.

Best boar over 1 year old, C. L. & R. Crouse, Youatt & Martin on Pigs and..... $2 00
Best breeding sow and pigs, J. Paddock, Hogs, their Origin, and 2 00
Best 5 pigs, 1 brood, Albert Tooley, Diseases of Domestic Animals and 1 00

CLASS XVI.—POULTRY.

Best pair Cochin China fowls, B. H. Lawson,..... $1 00
Best pair Chittagongs, N. J. Hickey,..... 1 00
Best pair Dorkings, F. J. Lee,..... 1 00
2d best " " 50
Best pair Shanghais, N. J. Hickey,..... 1 00
2d best " " 50
Best pair bantams, W. L. Wells,..... 50
2d best " T. Watrous,..... 25

CLASS XVII.—FARM IMPLEMENTS.

Best farm double wagon, E. Barnard,..... $3 00
2d best " " W. Chase,..... 2 00
Best harrow, S. N. Whitcomb,..... 50
Best straw cutter, Himes & Akely,..... 1 00
Best fanning mill, J. Hosmer,..... 1 00
Best grain drill, A. W. Olds,..... 2 00
Best broadcast sower, P. L. Smith,..... 2 00
Best reaper, " 3 00
Best mower, I. & J. F. Jennings,..... 3 00
Best grain cradle, I. Arms,..... 50
Best grub hoe, A. C. Briggs,..... 25
Best democrat wagon, L. K. Hewett,..... No premium offered.

CLASS XVIII.—PRODUCTS OF THE DAIRY.

Largest quantity of butter made from one cow in 30 consecutive days, F. Hardy,	$2 00
Best lot of butter made from one cow in 20 consecutive days, F. Hardy,	3 00
Best 10 pounds butter made in June, T. H. Bridgman,	1 00
2d " " " Mrs. D. Case,	50
Best 10 pounds butter made at any time, N. M. Sanders,	1 00
2d " " " L. Pratt,	50
Best new cheese, F. Williams,	1 00
2d best " Mrs. L. E. Beach,	50
Best churn, W. Sexton,	1 00
2d best " A. C. Briggs,	75
Best cheese press, J. Austin,	1 00

CLASS XIX.—SUGAR AND HONEY.

Best 10 pounds maple sugar, M. W. Randall,	$0 75
Best 10 pounds honey, W. Lewis, Bee Keeper and	50
Best bee hive, H. Lee, Hive and Honey Bee and	25

CLASS XX.—PLOWS AND PLOWING.

Best plowing ¼ acre with horses, W. Jubb,	$2 00
" " oxen, T. Musson,	2 00
" " horses by boy under 15 years of age, V. P. Bottsford,	2 00
Best plowing ½ acre, double team, oxen, J. S. Bliss,	3 00
Best plow for sod ground, A. W. Smith,	1 00
2d " " S. Clark,	75
Best plow for crossing, A. W. Smith,	1 00
2d " " S. Clark,	50
Best sub soil plow, A. W. Smith,	1 00

CLASS XXI.—DOMESTIC MANUFACTURES, FIRST VARIETY.

Best pair woolen blankets, Mrs. S. N. Whitcomb,	$1 00
" " sheets, Mrs. L. Walker,	1 00
2d " " " B. H. Lawson,	50
Best 10 yards flannel, Mrs. T. B. Brooks,	1 00
2d " " "	50

Best 10 yards fulled cloth, J. R. Hall,	$1 00
2d " " "	50
Best hearth rug, Miss E. Skillbeck,	1 00
2d best " Mrs. H. Mason,	50
Best 10 yards rag carpet, Mrs. P. Groff,	1 00
2d " " Miss M. Jewell,	50
Best pair woolen stockings, Mrs. S. W. Twitchell,	50
Best 1 lb. white woolen yarn, Mrs. S. W. Twitchell,	50
Best woolen shawl, Mrs H. Mason,	50
2d best " Mrs. T. B. Brooks,	50
1 piece fancy domestic flannel, discretionary premium, Mrs. L. A. Sexton,	50

Discretionary Premiums.

Cage birds, Mrs. S. F. Hubbell,	$0 25
Carpet coverlet, Miss E. Sexton,	50
Bread, baked, Mrs. D. Case,	25
" steamed, "	25
Tidy, Mrs. E. A. Brayton,	25
Stand cloth, "	25
Table cloth, Miss P. A. Brayton,	25
Coverlet, Mrs. R. P. Bush,	50
Grass bouquet, Miss L. Rossiter,	25
2 tidies, Mrs. C. M. Wood,	25
Carnation pink, Mrs. C. M. Wood,	25
2 pair black silk mitts, "	25
White bed spread, Mrs. L. C. York,	25
Vase flowers, Mrs. G. W. Lee,	25
Malt rising bread, Mrs. J. Davis,	25
Salt " "	25
1 pair bed spreads, Mrs. S. G. Ives,	50
Double carpet coverlet, Mrs. L. Walker,	50
2 bonnets, Mrs. J. Pruden,	50
Wool packer, John Howe,	1 00
2d best wool packer, J. Monroe,	50
Paring machine, G. W. Clapp,	25
Set tress hoops, L. D. Bull,	50

Log wagon, J. B. Taylor, ... $1 00

Best and second best carriages and buggies, discretionary premiums recommended by committee, but no premium awarded by executive committee for lack of funds.

CLASS XXII.—DOMESTIC MANUFACTURES, SECOND VARIETY.

Best pair calf boots, J. B. Skillbeck, ...	$1 50
2d best " "	1 00
Best pair kip boots, pegged, J. B. Skillbeck, ...	1 00
2d best " " "	50
Best pair cow hide boots, "	75
Best pair calf boots for ladies, "	50
Pair gents' fancy boots, J. B. Skillbeck, discretionary premium,	1 50

CLASS XXIII.—THIRD VARIETY DOMESTIC MANUFACTURES.

Best pork barrel, N. J. Holt, no competition, ...	$1 00
Best butter firkin, F. Henry, ...	40
Best flour barrel, R. Hildebrant, ...	25
Best well bucket, N. J. Holt, ...	25
Best panel door, Hiram Wing, ...	1 00
2d best " F. Kelly, ...	50
Best window blinds, F. Kelly, ...	75
Best specimen soft soap, Mrs. E. F. Burt, ...	25
Best washing machine, Ira Brayton, ...	1 00
2d best " B. W. Cardell, ...	50
Best horse shoes, David Lewis, ...	50
2d best " W. R. Melvin, ...	25
Best whiffletree hook, least liable to unhook, Himes & Akely,	25
Best draft whiffletree hook, least liable to unhook, W. R. Melvin, discretionary premium, ...	25

CLASS XXIV.—FOURTH VARIETY DOMESTIC MANUFACTURES.

Best barrel flour, Geo. W. Lee, ...	$2 00
Best cooking stove and furniture, complete, W. C. Rumsey, ...	2 00
Best parlor stove, W. C. Rumsey, ...	1 50
2d best " "	1 00
Best axe helve, N. Krisler, ...	15
Best double harness, J. M. Gilbert, ...	2 00
2d best " H. H. Smith, ...	1 00

Best single harness, J. M. Gilbert,	$2 00
2d best " S. B. Sliter,	1 00
Best saddle, bridle, and martingale, J. M. Gilbert,	2 00
2d best " " "	1 00
Best " " for ladies' use, H. H. Norton,	2 00
2d best " " " J. M. Gilbert,	1 00

CLASS XXV.—FIFTH VARIETY DOMESTIC MANUFACTURES.

Best made dress, Mrs. F. Kelly,	$1 00
2d best " Miss E. Skillbeck,	50
Best made shirt, Mrs. John Muir,	50
Best quilt, Mrs. J. R. Goodrich,	1 00
2d " Mrs. S. N. Gordon,	75
3d " Mrs. E. A. Brayton,	50
Best pair pillow cases, Miss E. S. Hickey,	50
Best pair cotton or linen stockings, Mrs. D. T. Wood,	50
2d best " "	30
Best lot domestic linen, Mrs. E. Frisbee,	1 00
2d best " Mrs. O. J. Smith,	50
Best worked collar for lady, Mrs. M. Curdy,	50

CLASS XXVI.—FANCY NEEDLE WORK.

Best specimen silk embroidery, overwrought, Miss A. A. Pond,	$1 00
Best specimen raised worsted work, Mrs. J. Turner,	75
Best muslin embroidery, Mrs. J. Sowles,	75
2d " Mrs. F. Morrison,	50
Best specimen worsted raised work, Mrs. G. W. Kneeland,	75
2d best " " Mrs. A. A. York,	50
Best chenelle embroidery, Miss E. Skillbeck,	75
Best specimen worsted embroidery, Mrs. A. P. Jewett,	75
Specimen French muslin embroidery, Miss Augusta Ruxton, discretionary premium recommended of	75
2d best specimen French muslin embroidery, Miss Augusta Ruxton, discretionary premium recommended of	50
Lamp mat, Mary E. Barnard, discretionary premium,	50
Specimen crochet work, Miss Fanny Fonda, discretionary premium of	50

Specimen lace embroidery, Mrs. R. P. Bush, discretionary premium of $0 75
Specimen raised worsted work, satchel, Mrs. G. H. Chambers, discretionary premium of 50

CLASS XXVII.—WAX WORK.

Best specimen wax fruit, Miss S. Pond, ... $0 50
2d best " Mrs. L. C. York, ... 25
Best specimen wax flowers, Miss O. Peebles, ... 50
2d best " Mrs. J. Pruden, ... 25
Best specimen pellis work, Mrs. F. W. Noble, ... 50
2d best " Miss M. E. Barnard, ... 25
Best specimen paper flowers, Mrs. S. F. Hubbell, no competition, ... 50
Best specimen hair flowers, Miss Emily Wells, no competition, 50

CLASS XXVIII.—PAINTINGS.

2 oil paintings, Mrs. G. W. Lee, no competition, ... $1 00
Best water color painting, Miss Sarah Rumsey, ... 1 00
Best penciling, Gen. Pierce, W. K. Sexton, ... 1 00
2d " landscape, Miss A. Markham, ... 50
Best monochromatic, moon-light, Miss E. Skillbeck, ... 75
2d " Corinth, L. K. Hewett, ... 25
Specimen daguerreotypes, F. G. Heath, ... 1 00

CLASS XXIX.—VEGETABLES.

Best dozen blood beets, Geo. W. Keeler, ... $0 50
Best 3 watermelons, Ira P. Bingham, ... 40
2d best 3 watermelons, Daniel Case, ... 25
Best dozen blood beets, Geo. Cameron, ... 50
" carrots, Jas. R. Sage, ... 50
Best 6 heads cabbage, Geo. Balcom, ... 50
Best 3 autumn squashes, W. C. Shaft, ... 50
Best 3 winter squashes, Jonathan Austin, ... 50
Best ½ bushel potatoes, N. M. Sanders, ... 50
Best ½ bushel ruta bagas, Francis Hardy, ... 25
Best ½ bushel white turnips, D. Boutell, ... 25
Best bushel onions, John Davis, ... 50

Best ½ bushel sweet potatoes, W. Lewis, ... 50
Best 3 pumpkins, L. E. Beach, ... 50
2d best 3 pumpkins, M. W. Randall, ... 25

CLASS XXX.—FRUIT AND NUTS.

Best and greatest variety of apples, F. Monroe, ... $1 00
2d best " " " 75
Best and greatest variety apples for winter use, E. Barnard, ... 1 00
2d best " " " E. W. Grant, ... 50
Best and greatest variety fall apples, N. M. Sanders, ... 75
2d best " " J. Lagrange, ... 50
Best lot peaches, S. M. Conley, ... 1 00
2d best lot peaches, W. Lyons, ... 50
Best lot grapes, F. Williams, Hoar on Grape Vine and 25
Best lot pears, W. Martin, ... 75
2d best lot pears, N. Krisler, ... 50
Best lot cranberries, P. Sexton, ... 1 00
2d best lot " A. Itzell, ... 50
Best lot hickory nuts, L. Pratt, ... 30
" hazel nuts, M. W. Randall, ... 50
" butter nuts, F. Monroe, ... 50
" dried apples, Mrs. T. B. Brooks, ... 50
2d " " N. M. Sanders, ... 25

CLASS XXXI.—GRAIN.

Best sample winter wheat, J. Rider, Jr., ... $0 75
2d best " T. Stanfield, ... 50
Best ½ bushel yellow corn, J. Davis, ... 50
2d best ½ " F. Monroe, ... 30
Best ½ bushel dent corn, L. Curtis, ... 50
2d best ½ " A. Itzell, ... 30
Best ½ bushel oats, S. M. Yerkes, ... 50
2d best ½ bushel oats, M. W. Randall, ... 30
Best ½ bushel rye, J. Davis, ... 50
Best ½ bushel white beans, J. W. Bottsford, ... 50
Best ½ bushel peas, J. Davis, ... 50
Best ½ bushel buck wheat, J. Davis, ... 50
2d best ½ " T. B. Brooks, ... 30

CLASS XXXII.—DESIGNS.

Best plan for farm house with estimates, F. Kelly,	$2 00
2d best " " Alva Preston,	1 00
Plan for horse barn, W. Hildreth, discretionary premium,	50
Best plan for village cottage, Kelly, discretionary premium,	1 00

CLASS XXXIII.—NATIVE CATTLE.

Best cow 4 years old or over, Stodard W. Twitchell,	$1 50
2d best cow 4 " N. M. Sanders,	1 00
3d best cow 4 " J. Rumsey,	50
Best pair 2 year old steers, I. Ide,	1 00
Best 2 bull calves 6 months old, L. C. Crittenden,	1 00
Best steer calf 5 months old, Walter Gorton,	50
2d best " 5 " A. Gorton,	50

ADDRESS

OF HON. F. J. LITTLEJOHN, DELIVERED BEFORE THE THIRD ANNUAL FAIR OF THE LIVINGSTON COUNTY AGRICULTURAL SOCIETY.

Fellow Citizens—Permit me to preface my remarks by congratulating you upon the excellence of your agricultural exhibition; and also upon the decided interest in your future success, manifested by this numerous and respectable assembly. In the views I may express to-day, I shall carefully abstain from the details of your profession, both for the reason that agricultural science cannot be successfully taught in a single address, and because my masters in the art are standing before me. My object is to awaken enquiry and provoke investigation. For this purpose, you will allow me to draw upon the past, and anticipate the future.

The spontaneous productions of the earth, in their primal condition, were never designed to supply the varied wants of man. In the system of Providential economy, both mental and physical labor are essential pre-requisites for the attainment of many things, alike necessary and desirable for human use. The seasons may wheel their accustomed rounds, the sun may pour forth his effulgent beams, fertilizing rains may descend upon the lap of earth, genial breezes may

continue to fan the luxuriant verdure that mantles the hills and carpets the valleys, and yet *man*, without a constant draft upon his own resources, would perish from alternate heat and cold, or starve in the vestibule of nature's granary. The stern decree, "In the sweat of thy face shalt thou eat bread," still rests in pristine vigor upon the whole brotherhood of humanity. The fearful lesson has been written a thousand times upon the page of human suffering. Meager famine induced by indolence or crime, has often exacted the most appalling tribute of life.

Even mental and physical activity, strenuous and continued, cannot alone purchase immunity from want. The noblest conceptions of genius have been penciled on canvas, and chiseled on marble, whilst the pangs of hunger were consuming the artist. At the very time when myriads of husbandmen were forced to toil in rearing those useless pyramids, men died of starvation within their shadow. Impelled by ambition or revenge, intellect has schemed, and men have strenuously labored to make desolate the fairest portions of the globe, trampling in the dust the bounties of nature garnered up by care or prudent forethought, and crushing out the image of God from the face of humanity. Generally, as a direct result, the recoil of pinching famine has proved more fearfully terrific than the edge of the sword.

Intellect, then, must operate in useful channels, and labor must be skillfully directed and diligently applied to the *legitimate* pursuits of industry.

It is natural for men, when assembled on occasions of common interest, like the present, to indulge in comparison and retrospection. In the midst of gratulations for the eminent success which has crowned your efforts, you instinctively glance over other communities, nations and countries, for the proper measure of your own attainments, and true position in the scale of civilized being. The result to you must be highly gratifying, when tried by any rational standard of morality, of social happiness, general intelligence, public prosperity and civil freedom. As it regards all matters of practical utility, you may also safely conclude that in mechanic art, inventions and scientific discovery, you have no superior.

We are also inclined to look far back into the past, and mark the progress in human affairs. We become curious in observing by what

successive steps the physical wants of man have pushed his intellect into investigation, research, invention and discovery, until the circle of human power over the elements of nature has become most wonderfully enlarged. Ill-shapen as must have been the first tools of trade, still Tubal Cain, the primal artificer in brass and iron, unquestionably furnished the rude models from which successive improvements have finally wrought out the innumerable variety of useful, elegant, and ornamental implements and utensils. Men were first clothed in skins, and then in garments of more flexible material elaborated by intellect for the occasion. But the twirling distaff and spindle, with the spool and hand shuttle of ancient matrons, have been entirely eclipsed by the spinning jenny and power loom, performing the labor of myriads of hands, and daily throwing off immense amounts in textile fabrics of surpassing beauty and gossamer fineness.

Nor are these the only changes wrought by skill and science. Who, whilst viewing the glorious models of naval architecture, of the present time, would dream of tracing out their prototype in the dug-out or frail canoe once creeping along the coast of Tyre, or in the more recent but clumsy trireme of Grecian pirates in the Levant? Who, as he now contemplates, in fancy, the rude cabins erected by Adam and his sons, would deem it possible that genius, from such a starting point, could ever reach the proportion, style and finish, and much less the grand architectural design of the Pantheon, or St. Peters of Rome?

What modern astronomer, standing in yonder observatory, as he traces, with mathematical accuracy, field after field of the starry vault, measuring the planets in their orbits, and assigning to each its law of motion, now thinks of having derived his first lessons from the nightly watchings of shepherds on the plains of Chaldea? Who can readily detect in the rude stone-wrought hieroglyphics of some Coptic priest of Egypt, the germ of the present power press, daily throwing off to millions the free-born thoughts of cultivated intellect? Or, stranger still, who deems that those mystic figures shadow forth captive lightning, laden with thought and racing with light?

Nor are these the only inroads made by intellect upon elemental arcana. Geology, mineralogy and chemistry, are daily presenting us with most astounding developments. I have but time to point your attention to the steam engine, flying in mighty power with its length-

ened train across kingdoms and continents, or driving leviathan ships, with resistless force, over the storm-crested billows of the ocean.

Time and space have thus, for purposes of travel and transmission, been practically annihilated. Differences in position, soil and climate, have been adjusted upon a scale approaching equality. By a rational division of labor, far greater excellence has been attained in the several branches of industrial pursuit. The facilities of land and water transit, now open the world as a market for the producer, whilst the products of every clime are easily reached by the consumer. Measured by the standard of present attainment and progressive improvement in the various arts of peace, civilization is far in advance of any former period.

We have now reached a point of view from whence we may still more closely inspect the three grand departments of human industry, *Agriculture*, *Manufactures*, and *Commerce*. In this general division, agriculture includes all the products of the soil, resulting from human skill and labor, together with the avails of all domestic animals. By manufactures we understand the products of mechanic art, whatever the materials used or means employed by the artificer. And by commerce we mean the export and import, the sale, exchange, or other disposition of all marketable commodities. As thus defined, each of these three departments has challenged the attention of our race from the beginning. Although each originated in the necessity or convenience of man, there has ever been not only a perceptible but a marked difference in their general estimation and progress. Despotic power, national pride, personal renown and luxurious habits of living, have each contributed to swell the amount of that difference.

Commercial enterprise has ever been cherished, both as a source of profit to the merchant, and for the articles of taste it has been wont to furnish for the palate and the person. I speak now of the extent and variety of the traffic, and not of the facilities of land and water transit. Beasts of burden for the land, and clumsy craft for water, were the means employed for ages. As recent as the time when Venice, through her merchant-princes, controlled the commerce of southern Europe and the Mediterranean, but slight improvements had been made in naval architecture, always excepting the high-beaked, elegant, scull-driven, gondolas of her own canals.

Mechanic art, in its extended sense, was early pushed to its utmost

tension, to supply not only the wants and conveniences of man, but to meet the large demands of taste, both voluptuous and refined. Genius and talent were alike subsidized—whilst inventions, discovery and improvements were not unfrequently rewarded with the contents of public treasuries, to be replenished again by cruel exactions from the agricultural classes. When we scan with an understanding eye the civilization of the Roman world, we are compelled to correct a popular error. They could imitate, but not invent. They could furnish hand-pattern artisans, but borrowed from Greece, from Egypt and Assyria, the models and designs, and imported their principal architects. With few individual exceptions, they were neither a literary nor a scientific people. They were servile copyists from others. Even their system of jurisprudence, down to the Emperors, was derived from Greece, and compiled by an Ephesian. Their refinements were ostentatious, their pleasures were sensual and venal, their amusements were brutal, their genius was for war, and their principal progress was in human slaughter.

Pardon this digression. It has been wrung from me by reading upon their gilded palaces, their majestic temples, their triumphal columns, and their 80,000 seated amphitheaters, the thrilling record of blood and famine in subject provinces. Why should it be deemed incredible then, that the Etrurian plow of Cincinnatus, composed of a forked stick, and harnessed by thongs of raw-hide to the horns of his oxen, should have continued the Roman plow for twenty centuries? Why should their uncouth reaping hook, with its still more crooked left hand accompaniment, have been exchanged for an improved utensil? Why should agriculturists have taken delight in extended fields of waving grain, in sleek, well fed flocks and herds, or in spacious barns and granaries? Such possessions would have proved the certain signal for rapine and plunder, for personal violence, and perchance for murder. No! their only shield was apparent destitution! Their only granaries were hidden excavations in the earth, whilst the forest or mountain steppes furnished a herding place for their cattle. The imperial tax, ruinous in itself, was generally doubled by the rapacity of provincial governors, with their numerous officials.

With slight modifications, agriculture has labored under like difficulties, the world over, until modern times. Wherever the relation of lord and vassals exist, whether as serfs of the crown or by any of the forms

of feudal tenure, there you will never find either agricultural prosperity or progress. True, small parcels of land may be farmed out by the lord of the manor, to his retainers and dependents, and be by them kept in tilth and productiveness by hand-trenching tillage. But this is not what we in America call farming. When we speak of a farmer, we mean both the owner and cultivator of broad acres. Five hundred farms in France and portions of Germany would hardly equal in extent the enclosures of a single Michigan farmer.

In the cursory view thus taken, I have endeavored to mark, in the three departments of industry, the cause of the wide difference in attainment and essential progress.

Agriculture is emphatically a peaceful occupation. It demands social order, and efficient, permanent laws for its protection from aggressive inroads. It requires science to direct, intelligence to guide, and a fee simple in the soil, to insure its successful management. And then, in the wide range of human effort, there is no field of enterprise more useful, more honorable, or more promising in its results, than American farming. The first settlers of the Union were mainly agriculturists, and land tillage has all along been nominally regarded as taking a high rank in the pursuits of our citizens.

And yet until within the last few years, what improvements were introduced into the system? What discoveries of science had been generally adopted? What useful inventions to facilitate cultivation, and to lessen the burden of labor for man and beast had been regarded with favor by our husbandmen? What associations for an interchange of views and a comparison of products, were in active operation? What newspaper, sheet, or periodical, laden with the gleanings of experience, and scattering agricultural intelligence, was either circulated or read? What careful examination into the properties of different soils, and their relative adaptation to the various kinds of grasses and cereals, had ever been prosecuted to satisfactory results? And what intelligent system of rotating crops, and of recuperating the exhausted energies of the soil by rest and fertilizing ingredients, was received as the basis of operations by any considerable number of our farmers? The truth is, that agriculture, for nearly a century, was conducted negligently, unskillfully, without system, and without the requisite amount of intelligence, in every part of our country. The unavoidable result was everywhere ex-

perienced. Farms became impoverished—the average yield was lessened in quantity and depreciated in quality—labor was but poorly requited—and the vocation (for it was not then deemed a profession) fell into disrepute. What wonder, then, that the *son*, forced to toil in the treadmill routine of his *father's* unthrift, should have acquired a thorough disrelish for all that pertained to the business, and have sought for himself some more congenial employment?

But thanks to the persevering energy, skill and science of a few philanthropic individuals, a mighty change has been effected in the entire aspect of our country. The series of spectacles, like the one of to-day, now annually exhibited in every part of the land, are not only evidences of progress made and triumphs achieved, but the harbingers of still higher attainments. The hitherto dormant energies of our agricultural classes have been successfully aroused, and the broad and deep furrow they will ere long plow will not only render earth's surface beautiful and productive, but will penetrate far and deep into the sterile domain of uncultivated intellect. There is hardly a branch of human learning that will not ere long be drafted into the ranks, and render efficient service in the field operations of practical, scientific agriculture. Men will no longer follow the plow, "whistling for want of thought." As the rich furrow yields to the improved share and takes its place with but little care or effort, the physical senses and mental faculties will have a broad margin for studying the volume of nature before them. The experimental tests, previously established by comparison, combination and analysis, will be diligently applied. Geological indicia will be observed, chemical affinities detected, and the elemental ingredients and fertilizing properties of the upturned soil will be fully arranged for the class table of seed; skillful manuring will go far towards supplying deficiencies, and preventing exhaustion. Judicious management in rotating and maturing crops, will relieve the soil by skillful drafts of gaseous nutriment from the atmosphere. The atermath of dry meadows will be kept sacred from scythe, hoof or tooth. To tillable land a season's rest in clover will be frequently awarded.

A corresponding improvement will be visible in the rearing, keep, condition, and breed of domestic animals. No gaunt, long-nosed, lop-eared, large-jointed, crooked-backed specimen of swine will offend the

eye in the street, or at two years of age, with a clear live weight of one hundred and twenty-five pounds, be thrust into a sty, to wallow in filth, and be *reduced* in six weeks, to killing order, upon flint corn in the ear! Bald-headed, hairy-limbed, light-quartered sheep, with a scanty covering of coarse wool upon the back and sides, will be entirely displaced by Leicesters, South-downs, Saxons or Merinos. Neat stock will range in green pastures, well fenced, shaded and watered in summer, and in winter will no longer shiver over their scanty allowance in open yards, or wend their way two hundred rods over a slippery path, in search of water, and then be compelled to take it kneeling, like a Mahomedan at his devotions. Horses by close breeding, keep and proper training, will become what nature designed them to be, the most active, useful and beautiful of domestic animals. We shall no longer see them with head and tail projecting towards the ground at an angle of forty-five degrees, creeping along, with every kind of gait and no gait at all, upon two legs and a couple of setting poles—galled upon back and breast,—troubled with thisteloes, glanders and heaves, and limping with pin-hip, ring-bone, curb and spavin. The truth is, our domestic animals have been stinted by cruelty, and dwarfed by neglect, until beauty, size and proportion have all disappeared. Let the sin and shame rest where they belong.

The change of which we are speaking will extend itself to the conveniences, comforts and even luxuries of domestic living. Taste, neatness and methodical arrangement will be evinced in the buildings, fixtures, fences, orchards and gardens of the farmer. Shade and ornamental trees will take their proper position in the yards, around the dwellings, and at judicious points in every field. Flowering shrubs and fruit-bearing vines will be clustered, and trained over trellises, delighting the eye and gratifying the taste. The choicest varieties of fruit, from vine, shrub and tree, will each, in its season, add to the pleasures of the family table and give a zest to toil itself.

Literary, scientific, moral and religious papers and periodicals will enliven, instruct and amuse the family circle. A choice seclection of books at home, aided by a constant draft upon circulating and township libraries, will furnish ample employment for all leisure hours. And if the children are blest with a musical taste, assorted melodies, with some favorite instrument, the piano, harp, melodeon, dulcimer or guitar, will

find a place in the spare room or parlor. Oftentimes the rough edge of temper is softened—the wrinkles of care are smoothed from the brow, and cheerfulness is restored by such appliances. There should be nothing in the daily avocations of the farmer's wife and daughters incompatible with harmony or a cultivated taste.

As the circle of intelligence becomes thus enlarged, the sordid wish for simple accumulation will yield to the far nobler desire of becoming useful. The circumference and shining surface of the mighty dollar, will be relatively lessened and eclipsed by the wider circle of humanity and the more durable brightness of philanthropic kindness.

And above and far beyond all, children will no longer be robbed of their inestimable rights by the avaricious desire of parents to add acres and farms to the homestead. Neither will they be longer compelled to toil in ignorance and rags until all proper self-esteem is crushed out, and they become conscious of inferiority to other youths. The after life of all such is usually marked by stupidity or infamy.

How long will American parents count dollars as an offset for education? How long shall our children be dwarfed in intellect by parsimony, or reared in ignorance by meanness? I have heard a healthy, able bodied man, the owner of 160 acres of land clear of incumbrance, with comfortable buildings and fields improved, remark that he could not afford to send his children to the district school! The very apology furnished conclusive evidence that the cruel neglect had originated in a narrow mind or a depraved heart. What! shall we be told here in Michigan; with our glorious school and university funds; with the noble endowments of our Normal and Agricultural Colleges; with academies and seminaries erected and sustained by private munificence, and with provision by law for sustaining in every district a school at least three months in each year, tuition free!—shall we be told, I repeat, that parents are still unable to educate their children? God forbid! What father would not toil with bleeding fingers and aching frame to polish the diamond of intellect in his child?

But it may be asked, what has all this to do with farming? I answer, *much every way, chiefly*, because the precious deposit of our national prosperity, honor and glory; the prevalence of intelligence and social virtue; the maintenance of social order; the perpetuity of our free institutions and the hopes of our race, are mainly in the keeping

of the agricultural classes. In other departments there is far less of stability and trust. With them wealth is more emphatically power, and that power is liable to be abused. In our populous towns and cities a wide departure from Republican simplicity is clearly observable. Foreign customs, manners and extravagant habits of living, are making serious inroads. A frightful chasm is beginning to yawn between the rich and the poor. Supercilious arrogance upon the one hand, and cringing servility upon the other, are gaining a foothold as elements in the American character. Wealth and extravagant display not only furnish admission tickets to aristocratic circles, but are foisting men into official station.

I hold the opinion to be correct, that the American citizen who is willing to wear the court livery, and bend the supple knee to despots abroad, can never be a safe depository of our equal rights and God-given freedom, at home. Who, then, shall maintain the doctrines of Republican simplicity, or practice the stern virtues of our forefathers, if not the agricultural classes? Where shall we look for mature judgment, for enlarged views, and integrity of heart and life, if not to them? The cloud of war is now sweeping across the horizon of Europe, and we have some discordant elements at home. The ark of our covenant may yet be jostled by external violence or interal commotion. In the hour of freedom's peril, where shall we look for the man with head to plan, with heart to brave, and hand to execute, if not to the agricultural classes? How immensely important, then, that the youth in all our rural districts should be *physically, mentally and morally* trained and schooled into the full development of manhood!

But grant that the star-spangled banner shall continue to wave over the length and breadth of our country, and that our free institutions shall continue to afford ample protection to all beneath the shelter of that flag, until the valley of the Mississippi, the steeps of the mountains and shores of the far-off Pacific, shall teem alike with a dense population. The vast preponderance of commercial wealth and power will unquestionably remain in our cities along the seaboard east, south and west. Manufacturing enterprize is wont to seek out particular localities, and its wealth and power might remain concentrated in one extremity of the Union. Where, then, shall be found an all pervading interest, permeating the grand masses of society, and imparting freshness and

vigor to the arterial tides of life pulsating from the great heart of the Republic to its extremities? Agriculture with its varied productions and diffusive interests must solve the problem. Aye, practically, scientific agriculture will still be found adequate to supply the wants of all; still binding the extremities to the center, and that center to freedom, as anatomical ligaments unite the bones in healthful articulation. Like as the belt of wampum passing from tribe to tribe of the aborigines was the precursor and herald of the pipe of peace, so shall the sheaf of wheat remain, from ocean to ocean, and from the lakes to the gulf, the symbol of amity, and the token of brotherhood.

What a magnificent spectacle is looming up to view in the nearing future! Countless millions of freemen, with one common interest—one common language—one common country, and one common banner—all basking in the full fruition of industrial products, and still wafted onward by the tide of successful experiment and progressive improvement! Then shall the temple of liberty stand out in matchless symmetry, from base to architrave, and from entablement to dome; all over, glorious, and flashing forth light in long lines of brightness; not from the emblazonry of war and slaughter, but from records and inscriptions of high attainment in the varied arts of peace—of triumphs of science, and achievements of mind.

Indulgent hearers! Allow me, in fancy, to carry you forward a century, and then transport you to the dome of that temple. Is it not a matchless observatory? How the eye drinks in the prospect of nature and humanity before it! What a diversity of objects meets our enraptured gaze! The earth teems with flocks and herds, and with the multitudinous throngs of human life! It is reeling under the rich burden of its own productions in every stage of maturity! The rivers, lakes and seaboards are plowed by steamers, and whitened by canvass. Through the valleys, across the plains, over the hills and around the mountains, the country seems everywhere divided, and yet united by the network of highways, canals, railroads and telegraph lines. It is the grand panorama of nature and art in happy, prosperous America!

But hark! There is a sound upon the breeze. Faintly it first reaches us, from the east, like the distant evening chime. Now it is echoed back from the mountains in the west. Again it is caught up

in the north, and prolonged in the south. Now, it gushes forth from the valleys—it rolls around the hills—it surges up to us from the plains! It is not the booming of cannon—it is not the explosive thunder of the elements—it is not the monotonous roll of Niagara—nor yet the roar of the ocean in its anger! Unlike, and yet greater than all these, it now rushes past us—it whirls around us—it fills the quivering air—it shakes the earth like an aspen—it thrills through our being, and bewilders the senses with the ever mingling crash of sounds! And yet, it is not all discordant. There is method coupled with modulation. There is symphony in the mingled sounds. There are musical tones and harmonious cadences. There are both the refrain and the chorus. Hark! Still more distinct it bursts upon the ear, fresh from human organs! It is a song of praise and thanksgiving, uprising from the lips of countless millions! Oh! it is the closing anthem chanted by our nation at the annual festival of their *agricultural harvest home!* It ceases, and all is still.

Hush! There is music again on earth! Soft, sweet and divinely melodious, it comes from the secret pavilion of the Invisible and the Eternal. It is the response of Infinite Benificence to the previous song of joy and gladness, and the burden of the ravishing strain is identical with that whilom heard at night by the shepherds of Judea. "Peace on earth and good will to men."

MACOMB COUNTY.

J. C. Holmes, Esq., *Sec'y Mich. State Agricultural Society:*

The sixth annual fair of the Macomb County Agricultural Society was held on the 10th and 11th days of October, 1855, at Brooklyn, on the plank road, between Mt. Clemens and Romeo, being very near the geographical center of the county, and although the accommodations for a large attendance were not first rate, yet it appeared to make but little difference, for the people turned out *en masse*, and we had a very large gathering, and everything went off in fine style.

The show of stock exceeded anything we have had at any previous fair. There were splendid horses, Durham and Devon cattle, and French and Spanish sheep exhibited. Great skill and fine taste were displayed in the fine arts and domestic manufactures, which show a rapid advancement since the organization of the Society.

The annual address was delivered at one o'clock of the 11th, by Thomas M. McEntee, Esq., which was a beautiful, practical, and eloquent effort, and well adapted to the occasion. At the close of the address, the following resolution was unanimously adopted:

Resolved, That the thanks of this Society be, and are hereby, tendered to Thomas M. McEntee, Esq., for the very able and eloquent address just delivered before this Society, and that he be requested to furnish a copy of the same for publication.

The Society then proceeded to the election of its officers for the ensuing year, which resulted as follows, to wit:

President—Ira H. Butterfield.

Secretary—Charles F. Mallory.

Treasurer—Payne K. Leach.

Executive Committee—Loren Andrus, George W. Phillips, Leonard Lee, Harlehigh Cartter, Robert Campbell.

On motion, the Society adjourned.

JOHN H. KAPLE,
Secretary.

LIST OF PREMIUMS

Awarded at the 6th annual fair of the Macomb County Agricultural Society, held at Brooklyn, October 10th and 11th, 1855.

DURHAM CATTLE.

Best bull 3 years old and over, Robt. Warner, Diploma and	$3 00
Best bull 1 year old, Hiram T. Bancroft,	2 00
2d " 1 " James Flower,	1 00
Best bull calf, Geo. W. Phillips,	2 00
2d best " Leonard Lee,	1 00
3d best " James Flower,	Book.
Best cow 4 years old and over, James Flower, Diploma and	3 00
2d best " " " Leonard Lee,	2 00
Best heifer 3 years old, Leonard Lee,	3 00
2d best " " Wm. Canfield,	2 00
Best heifer 2 years old, Geo. St. John,	3 00
2d " 2 " J. L. Kelsey,	2 00
3d " 2 " James Flower,	Book.
Best heifer 1 year old, Geo. W. Phillips,	2 00
2d " 1 " Leonard Lee,	1 00
Best heifer calf, J. L. Kelsey,	2 00

DEVON CATTLE.

Best bull 3 years old and over, Drake & Ober,	Diploma.
Best bull 1 year old, Robt. Mellikin,	$2 00
Best bull calf, Wm. Gass,	2 00
Best cow 4 years old and over, Geo. W. Phillips, Diploma and	3 00
2d " 4 " " Wm. Gass,	2 00
Best heifer 2 years old, Wm. Gass,	3 00

DURHAMS AND DEVONS.

Best bull 3 years old and over, Wm. Gass, Diploma and		$3 00
2d " 3 " " H. Terwilliger,		2 00
Best bull 2 years old, B. D. Rodgers, Transactions and		3 00
Best bull 1 year old, Steph. P. Chamberlin,		2 00
2d " 1 " Wm. H. Lester,		1 00
3d " 1 " Steph. P. Chamberlin,		Book.
Best bull calf, J. L. Kelsey,		2 00
2d best " W. H. Lester,		1 00
3d best " Wm. Gass,		Book.
Best cow 4 years old and over, J. L. Kelsey, Diploma and		3 00
2d " 4 " " H. Terwilliger,		2 00
3d " 4 " " Geo. W. Phillips,		Transactions.
Best heifer 3 years old, B. D. Rodgers,		3 00
" 2 years old, J. L. Kelsey,		3 00
2d " 2 " Geo. W. Phillips,		2 00
Best heifer 1 year old, J. L. Kelsey,		2 00
2d " 1 " Geo. W. Phillips,		1 00

DURHAM AND NATIVE.

Best bull 3 years old and over, Leonard Lee,		$3 00
" 2 " Anson Crawford,		3 00
2d " 2 " Elisha Harvey,		2 00
Best bull 1 " E. Q. Chamberlin,		2 00
2d " 1 " Daniel Kniffin,		1 00
Best bull calf, Steph. P. Chamberlin,		2 00
Best cow 4 years old and over, James B. St. John,		3 00
2d " 4 " " Leonard Lee,		2 00
3d " 4 " " Geo. W. Phillips,		Transactions.
Best heifer 3 years old, Hiram T. Bancroft,		3 00
2d " 3 " Albert Edget,		2 00
Best heifer 2 years old, Sydney Kiddon,		3 00
2d " 2 " Albert Edget,		2 00
3d " 2 " Robert Warner,		Book.
Best heifer 1 year old, Henry Mellon,		2 00
2d " 1 " James B. St. John,		1 00
3d " 1 " Russell Roberts,		Book.

Best heifer calf, Hiram T. Bancroft, ... $2 00
2d best " Wm. Canfield, ... 1 00
3d best " Albert Edget, ... Book.

DEVON AND NATIVE.

Best bull 2 years old, Elisha Harvey, ... $3 00
Best bull 1 year old, W. C. Everetts, ... 2 00
2d " 1 " Duncan Gass, ... 1 00
Best bull calf, A. B. Sheldon, ... 2 00
Best heifer 2 years old, James B. St. John, ... 3 00
Best heifer 1 year old, A. B. Sheldon, ... 2 00
2d " 1 " Thos. Payne, ... 1 00
Best heifer calf, John B. Wright, ... 2 00

NATIVE CATTLE.

Best cow 4 years old and over, John Chapman, ... $3 00
2d " 4 " " Russell Roberts, ... 2 00
3d " 4 " " Steph. P. Chamberlin, ...Transactions.
Best heifer 3 years old, James Flower, ... 3 00
Best heifer 2 years old, Dennis Cooley, ... 3 00
2d " 2 " James Flower, ... 2 00
Best heifer 1 year old, N. Dickinson, ... 2 00
2d " 1 " do. 1 00

WORKING OXEN.

Best oxen 5 years old and over, Marvil Shaw, ... $3 00
2d " 5 " " J. L. Kelsey, ... 2 00
3d " 5 " " M. Thompson, ...Transactions.
Best steers 4 years old, Alanson Arnold, ... 3 00
2d " 4 " Richard Jersey, ... 2 00
3d " 4 " O. Millard, ... Book.
Best steers 3 years old, H. W. Miller, ... 3 00
2d " 3 " John Proctor, ... 2 00
Best steers 2 years old, Joseph Sykes, ... 2 00
2d " 2 " W. H. Lester, ... 1 00
3d " 2 " John Coomb, ... Book.
Best steers 1 year old, John Chapman, ... 2 00
2d " 1 " Robt. Warner, ... 1 00

BLOOD HORSES.

Best stallion 4 years old and over, R. R. Briggs, Diploma and	$5 00
2d " 4 " " Austin Wales, Transactions and	3 00
3d best stallion 4 years old and over, Harmon A. Ray,	1 00
Best stallion 3 years old, Noah Gould, Transactions and	3 00
Best brood mare 4 years old and over, Austin Wales, Diploma and	3 00
2d best brood mare 4 years old and over, R. R. Briggs, Transactions and	2 00
Best mare 3 years old, R. R. Briggs, Transactions and	3 00
Best mare 1 year old, Austin Wales,	2 00

DRAUGHT HORSES.

Best stallion 4 years old and over, Robert Mellikin, Diploma and	$5 00
Best stallion 2 years old, Hugh Mahaffy,	2 00
2d " 2 " H. Terwilliger,	Book.
Best stallion 1 year old, D. S. Corbin,	2 00
2d best stallion 1 year old, B. D. Rodgers,	1 00
Best stud colt, Loren Andrus,	2 00
2d best " A. E. Leete,	1 00
Best brood mare 4 years old and over, W. G. Anderson, Diploma and	3 00
2d best brood mare 4 years old and over, Robert Warner, Transactions and	2 00
3d best brood mare 4 years old and over, W. G. Anderson,	Book.
Best mare colt, Wilson Cronk,	2 00
Best span geldings 4 years old and over, W. A. Stone,	4 00

HORSES FOR ALL WORK.

Best stallion 4 years old and over, Abraham Foot,	Diploma.
Best stallion 3 years old, James Crawford, Transactions and	$3 00
2d " 3 " H. Myers,	2 00
Best stallion 2 years old, Robert Welts,	2 00
Best stallion 1 year old, Duncan Gass,	2 00
2d " 1 " Alvah Arnold,	1 00

Best stud colt, Nelson Lowell, ... $2 00
2d best " Jeremiah Curtis, ... 1 00
3d best " Hiram Calkins, ... Book.
Best brood mare 4 years old and over, Hiram Calkins, Diploma and 3 00
2d best brood mare 4 years old and over, John Proctor, ... 2 00
3d best " 4 " " Nelson Lowell, ... Book.
Best mare 3 years old, Leonard Lee, Transactions and 3 00
2d " 3 " John Proctor, ... 2 00
3d " 3 " E. W. Lyon, ... Book.
Best mare 2 years old, J. Crissman, ... 2 00
2d " 2 " R. R. Smith, ... 1 00
3d " 2 " Alson Haines, ... Book.
Best mare 1 year old, Tompkins Abby, ... 2 00
2d " 1 " Jacob McCrackin, ... Book.
Best mare colt, I. Howard Butterfield, Jr., ... 2 00
2d " " S. A. Colby, ... 1 00
Best single horse 4 years old and over, W. A. Stone, ... 3 00
2d best " 4 " " H. B. Castle, ... 2 00
3d best " 4 " " S. A. Colby ..... Book.
Best span horses 4 years old and over, Timothy Lockwood, ... 3 00
2d best " 4 " " E. Cuyrkendale, ... 2 00
3d best " 4 " " R. R. Smith, ... Book.
Best span horses 3 years old, H. DeGroff, ... 3 00
2d best " 3 " James Flower, ...

FRENCH SHEEP.

Best buck 2 years old and over, I. H. Butterfield, Diploma and $3 00
2d " 2 " " Loren Andrus, ... 2 00
3d " 2 " " James B. St. John, ... Book.
Best buck 1 year old, Ira H. Butterfield, ... 3 00
2d " 1 " Leonard Lee, ... 2 00

SPANISH SHEEP.

Best buck 2 years old and over, I. H. Butterfield, Diploma and $3 00
2d best buck 2 years old and over, Leonard Lee, ... 2 00
Best buck 1 year old, I. H. Butterfield, ... 3 00

Best pen 5 ewes 4 years old and over, I. H. Butterfield, ... $3 00
2d " " 4 " " do. 2 00
3d " " 4 " " do. ..... Book.
Best pen 5 ewe lambs, Charles Andrus, ... 3 00

FRENCH AND SPANISH SHEEP.

Best buck 1 year old, I. H. Butterfield, ... $3 00
2d best buck 1 year old, I. H. Butterfield, ... 2 00
3d " 1 " Loren Andrus, ... Book.
Best pen 5 ewes 2 years old and over, I. H. Butterfield, ... 3 00
2d best " 2 " " 2 00
3d best " 2 " Leonard Lee, ... Book.
Best pen 5 ewes 1 " I. H. Butterfield, ... 3 00
2d best " 1 " " 2 00
3d best " 1 " Samuel Ladd, ... Book.
Best pen 5 buck lambs, I. H. Butterfield, ... 3 00
2d " 5 " Leonard Lee, ... 2 00
3d " 5 " Loren Andrus, ... Book.
Best pen 5 ewe lambs, I. H. Butterfield, ... 3 00
2d " 5 " Loren Andrus, ... 2 00
3d " 5 " Leonard Lee, ... Book.

LONG WOOL SHEEP.

Best buck 2 years old and over, Sam'l K. Snover, Diploma and $3 00
2d " 2 " " Geo. W. Phillips, ... 2 00
3d " 2 " " Chas. Inman, ... Book.
Best buck 1 year old, Sam'l K. Snover, ... 3 00
Best pen 5 ewes 2 years old and over, Chas. Inman, ... 3 00
2d best pen 5 ewes 2 " Sam'l K. Snover, ... 2 00
Best pen 5 buck lambs, Sam'l K. Snover, ... 3 00
Best pen 5 ewe lambs, " 3 00

SOUTHDOWN SHEEP.

Best buck 2 years old and over, Wm. H. Lester, ... $3 00
2d best buck 1 year old, " 2 00
3d " 1 " " ..... Book.
Best pen 5 ewes 2 years old and over, " 3 00
2d best pen 5 buck lambs, Wm. H. Lester, ... 2 00
Best pen 5 ewe lambs, " 3 00

GRADES AND NATIVES.

Best pen 5 ewes 2 years old and over, Sam'l Ladd,	$3 00
2d " 5 " " Leonard Lee,	2 00
Best pen 5 ewes 1 year old, Sam'l Ladd,	3 00
Best pen 5 ewe lambs, "	3 00
2d " 5 " Leonard Lee,	2 00
3d " 5 " David Vinton,	Book.

SWINE.

Best brood sow 1 year old and over, Bissell Robinson,	$3 00
Best litter pigs, not less than 5, "	3 00

FARM IMPLEMENTS.

Best fanning mill, Chas. Bennett,	$2 00
Best cultivator, Mussey & Chamberlin,	2 00
Best farm wagon, J. C. Lawrence,	3 00
Best single buggy, H. B. Castle,	2 00
Best double buggy, Aden Taft,	3 00

PLOWS AND PLOWING.

Best plow for general use, Mussey & Chamberlin,	$2 00

BREAD, BUTTER, CHEESE, HONEY, &C.

Best 10 lbs. maple sugar, Joel Thompson,	$1 00
2d best 10 lbs. " Orrin Freeman,	50
3d best 10 lbs. " Lewis Drake,	50
Best 10 lbs. butter made at any time, Mrs. A. Streeter,	2 00
2d best 10 lbs. " " Mrs. Leonard Lee,	1 00
3d best 10 lbs. " " Mrs. Dennis Cooley, Rural Economy.	
Best 30 lbs. butter made in June, Mrs. B. Robinson,	3 00
2d best 30 lbs. " " Mrs. Leonard Lee,	2 00
Best cheese, Mrs. R. R. Briggs,	2 00
2d " Mrs. David Green,	1 00
Best 3 loaves brown bread, Mrs. J. L. Kelsey,	2 00
2d best 3 " Mrs. A. Streeter,	1 00
Best 3 loaves white bread, Mrs. A. Streeter,	2 00
2d best 3 " Mrs. B. Robinson,	1 00
3d best 3 " Mrs. D. Mussey,	50

Best 10 lbs. honey, Abr'm Wilson, ... $1 00

DOMESTIC MANUFACTURES.

Best 20 yards satinet, Mrs. J. H. Ackerman, ... $2 00
2d best 20 " Mrs. A. Wilson, ... 1 00
Best 1 lb. wool yarn, Mrs. Calvin Pierce, ... 50
2d best 1 lb. " Mrs. A. W. Sutton, ... 25
3d best 1 lb. " Mrs. Calvin Pierce, ... 25
Best double coverlet, Mrs. John Proctor, ... 1 00
2d best " Mrs. N. Perry, ... 75
3d best " Mrs. John Proctor, ... 50
Best 10 yards full cloth, Mrs. N. Perry, ... 3 00
2d best 10 " Mrs. Wm. Hall, ... 2 00
Best 10 yards rag carpet, Mrs. Joel Thompson, ... 2 00
2d best 10 " Mrs. O. Dudley, ... 1 00
Best bed spread, Lucy A. Rodgers, ... 3 00
2d best " Mrs. H. Davis, ... 2 00
Best pair fringed mittens, Mrs. B. T. Castle, ... 75
2d " " " 50
3d " " Mrs. H. Davis, ... Book.
Best pair wool mittens, Mrs. J. Bixby, ... 75
Best fly net, J. Skillman, ... Book.
Best pair wool socks, Mrs. Calvin Pierce, ... 50
2d " " Mrs. O. Millard, ... Book.
3d " " Mrs. H. W. Noyes, ... "
Best pair linen stockings, Mrs. B. T. Castle, ... 1 00
" cotton stockings, Mrs. O. Millard, ... 1 00
2d " " " 50
Best pair wool stockings, Mrs. H. Runyon, ... 1 00
2d " " Mrs. Wm. Hall, ... 50
Fine coat, foreign, G. Hopkins.
Best pair wool blankets, Mrs. H. M. Noyes, ... 2 00
" sheets, " 1 00
Best 10 yards white flannel, Mrs. Calvin Pierce, ... 3 00
2d best 10 yards " Mrs. Elam Chapin, ... 2 00
3d best 10 yards " Mrs. Orrin Freeman, ... Book.
Best 10 yards plaid flannel, Mrs. Elam Chapin, ... 2 00

2d best 10 yards plaid flannel, Mrs. Wm. Arnold,..... $1 00
Best 10 yards cotton and wool flannel, Mrs. Calvin Pierce,.... 1 00

NEEDLE, SHELL AND WAX WORK, PAINTING AND DRAWING.

Child's embroidered muslin dress, Mrs. J. M. Vaughn,..... $1 50
3 " collars, Mrs. J. T. Robinson,..... 75
Infant's embroidered skirt, Mrs. Thomas Hazel,..... 50
" hood, Mrs. L. Andrus,..... 75
" blanket, " 50
" skirt, Mrs. Robert Welts,..... 25
Ladies' embroidered silk apron, Miss Lydia Sterling,..... 1 00
" " Mrs. B. T. Castle,..... 75
" " Mrs. Clark,..... 50
Worsted ottoman cover, raised, Mrs. C. Pierce,..... 1 50
" " " 1 00
" " Mrs. Wm. Hall,..... 75
Worsted embroidered ottoman cover, Miss Mary Pierce,..... 1 25
" " Mrs. A. W. Sterling,.... 75
" " Mrs. J. L. Kelsey,..... 50
Embroidered cloth cape, Mrs. B. T. Castle,..... 75
" lace cape, " 50
Gent's embroidered slippers, " 25
Worsted lamp mat, Mrs. A. W. Sterling,..... 1 00
" Mrs. J. L. Kelsey,..... 75
Pair worsted lamp mats, Mrs. C. Pierce,..... 50
Gent's shirt, Mrs. Thomas Hazel,..... 1 00
" Mrs. B. T. Castle,..... 50
" " 25
White quilt, Mrs. Loren Andrus,..... 1 50
Patch quilt, Mrs. J. T. Robinson,..... 1 25
" Mrs. O. Millard,..... 75
" Mrs. Chas. Crissman,..... 50
Tidy, Mrs. A. W. Sutton,..... 75
" Mrs. O. Millard,..... 50
" Mrs. C. Davis,..... 25
Case wax flowers, Miss Mary Davis,..... 25
Ornamental leather work, Mrs. A. Tenny,..... 1 00
" " " 75

Ornamental leather work, Mrs. A. Tenny,	$0 50
Crayon painting, Miss E. Dickinson,	1 50
" Miss F. Mallory,	75
Monochromatic painting, Mrs. B. T. Castle,	1 00
" Mrs. Loren Andrus,	50
Tissue flowers, Mrs. Joel Thompson,	50
Bouquet, Mrs. N. Dickinson,	Book.

FRUITS AND FLOWERS.

Best 6 varieties winter apples, D. Miller,	$2 00
2d best 6 " J. G. Strannahan,	1 00
3d best 6 " Geo. W. Phillips,	Cole's Fruit Book.
Best 6 varieties fall apples, Argalus Streeter,	2 00
2d best 6 " H. H. Huntington,	1 00
Best 6 varieties fall seedlings, B. Robinson,	2 00
Best quinces, Nathan Keeler,	1 00
2d " H. H. Huntington,	50
Best 3 varieties pears, H. H. Huntington,	2 00
2d best 3 " Nathan Keeler,	1 00

VEGETABLES.

Best 6 cabbages, David Conner,	$0 50
2d best 6 cabbages, Lewis Sage,	25
3d best 6 cabbages, Wm. Holly,	13
Best varieties turnips, Loren Andrus,	50
2d best " J. Curtis,	25
Best pumpkin, Nathan Keeler,	50
Best squash, Lewis Sage,	50
Best beets, Hugh Mahaffy,	50
Best bushel Chicago potatoes, B. T. Castle,	50

BOOTS, SHOES AND HARNESS.

Best single harness, Jas. Crawford,	$2 00

POULTRY.

Best coop Cochin Chinas, Jas. Flower,	$2 00
2d " " Leonard Lee,	1 00
Best coop Shanghais, Jas. Flower,	2 00
2d best " Leonard Lee,	1 00

Best coop Brahma pootras, L. D. Owen, ... $2 00
2d " " Marcus Nye, ... 1 00
Best coop Chittagongs, Jas. Flower, ... 2 00
2d best " L. D. Owen, ... 1 00
Best coop bantams, A. Streeter, ... 2 00

MISCELLANEOUS ARTICLES.

Copper wash bowl, half dozen tin milk pans, 2 tin tea pots, C. F. Mallory, ... $0 50
Bottle currant wine, bottle frost grape wine, Mrs. J. L. Kelsey, . 50
2 pair whiffletrees, 2 neck yokes, 10 horse shoes, 2 plow clevises, 2 chain hooks, Mussey & Chamberlin, ... 1 00

FOREIGN STOCK.

Best blood stallion, Harris Newton, ... Diploma.
Best draught stallion, Harmon Ray, Vt., ... "
Best French buck, J. D. Patterson, N. Y., ... "

SWEEPSTAKE PREMIUMS.

Best stallion, Harris Newton, ... $5 00
Best Durham bull, Geo. W. Phillips, ... 5 00
Best Devon bull, Drake & Ober, ... 5 00

JOHN H. KAPLE,
Secretary.

Report of the Treasurer of the Macomb County Agricultural Society, for the year 1855.

By balance on hand from 1854, ... $136 24
" membership tickets, ... 254 00
" admission tickets, ... 197 05
" fruit sold, ... 3 28
" subscription, ... 105 00
" agricultural tax for 1854, ... 513 00
" " 1855, ... 129 99

$1,338 56

To paid for fitting ground,	$130 00
" clerk, watch, and gate tenders,	12 75
" feed for stock at fair,	15 00
" printing,	25 00
" sundries,	16 18
" Secretary,	40 00
" premiums,	514 38
To balance on hand,	585 25
	$1,338 56

PAYNE K. LEACH,
Treasurer.

January 1st, 1856.

MONTCALM COUNTY.

FIRST REPORT OF THE MONTCALM COUNTY AGRICULTURAL SOCIETY.

Pursuant to notice, the farmers and those friendly to the advancement of agriculture, assembled at the Rossman House, in the village of Greenville, on Saturday, the 5th of January, 1856.

On motion,

Josiah Bradish, of Fair Plain, was called to the Chair, and Milo Blair chosen Secretary.

After stating the object of the meeting, it was unanimously resolved to organize an Agricultural Society for the county of Montcalm. The meeting then proceeded, by ballot, to elect the officers for the current year, which resulted as follows:

President—R. K. Divine.

Vice Presidents—O. T. Nelson, Eureka; Daniel Fargo, Jr., Fair Plain; E. B. Edwards, Montcalm; Chauncey W. Olmsted, Bushnell; William Patrick, Bloomer.

Recording Secretary—Milo Blair.

Corresponding Secretary—Josiah Bradish.

Treasurer—Henry Berridge.

On motion,

The Chair appointed a committee of five to draft a constitution and by-laws, to be presented at the next meeting of the Society, viz.: Ethan Satterlee, Jr., Madden Macumber, Westbrook Divine, John Fargo, and A. W. Maynard.

The meeting then chose the following Executive Committee: Ezra Satterlee, Westbrook Divine, Erastus Fisher, John W. Kent, C. H.

Miel, Josiah Bradish, F. S. Peck, E. B. Edwards, Mark Wilsey, William Patrick, W. Castel and C. W. Olmsted.

On motion,

It was resolved that the proceedings of this meeting be published in the Montcalm Reflector.

On motion,

The meeting adjourned to meet at the Rossman House, on Saturday, the 12th day of April next, at 10 o'clock A. M.

J. BRADISH,
Chairman.

MILO BLAIR, *Secretary.*

MONROE COUNTY.

The Monroe County Agricultural Society held its Sixth Annual Fair at Monroe, October 11th, 1855.

OUR COUNTY FAIR.

The annual agricultural fair has now become almost an established institution of the county, and each succeeding year enlists increased interest, and gives evidence of increased usefulness in advancing all the material branches of agricultural industry. The fair for this year was as generally attended as could have been expected, and the display was quite equal, and in many respects superior, to former exhibitions.

The equestrian exercises were a new feature at our county fair, introduced this season for the first time. In awarding the prizes for the best horsemanship, the committee appeared to be much in doubt how to decide between the competitors, so admirably did the ladies acquit themselves. They finally gave the first premium to Miss Sophia A. Wells, the second to Miss Mary A. Addy, and the third to Mrs. A. Lee. The prizes, we believe, are to consist of Silver Cups.

The annual address, by T. M. Cooley, Esq., of Lenawee county, was listened to with evident attention and satisfaction by the large assembly present, despite the music of the rustling leaves and the singing of the winds. Mr. Cooley understands well the subjects he discussed, and his remarks indicated that he has made himself familiar with agricultural and horticultural pursuits. The thanks of the Society were unanimously voted to Mr. Cooley for his able address, a copy of which was requested for publication.

The Ode on Agriculture, prepared for the occasion by the Hon. John Burch, President of the Society, was sung with much spirit and good

feeling by several vocalists present, and was heartily cheered by the company.

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THE DAIRY.

There is no department of agricultural pursuits more important, and none which heretofore have engaged less the attention of the farmers among us, than the dairy interest. The importance of this interest to the farmers of this country, is becoming every year more apparent. Their lands generally but poorly adapted to the culture of wheat, the great staple of the west, yield but small and uncertain returns for the amount of labor bestowed. The insect, blight and wet, too often admonish our farmers of its impracticability and unprofitableness longer to trust to its general cultivation among us as a remuneration for labor and land; and the attention of the farmer, we think, should now be turned to the raising of the best kinds of stock, and perfecting themselves in the manufacture of butter and cheese, and thus secure to our dairymen not only the highest price for their products, but the best markets in our own and other counties. Why should not these products be articles of exportation with us, as wheat is from this State? Why should not Monroe county butter and cheese take the place of the famous Hamburg cheese and Goshen butter, so world-wide known? There is no good reason. We have lands quite as well if not better adapted to the growing of stock and fine milch cows, and we would not libel our fair country-women so much as to suppose them inferior in any respect, and particularly in the manufacture of these articles, to any other in the known world. The quality of butter and cheese, as well as the price, seems to be yearly improving, and a fact like this should stimulate the exertions of our farmers in this direction. There is no good reason *now* why the character of our *best dairies* should not be as well known in New York, London and Liverpool, as at home. Inferior butter or cheese should not be sold, but should be classed as it is in England, with grease, and command no higher price; and the committee would press upon our dairymen the necessity of care and attention in the preparation of these articles. There is no difficulty in producing a good article, and if the requisite knowledge is acquired, and suitable

preparations for making secured, there should be no inferior article, and if there is, the fault must rest with the dairyman or maid.

The samples of butter and cheese on exhibition at this annual fair show this—the principal cause of poor butter may be attributed to the following errors: 1st, want of a proper place, cool and airy, to keep the milk; 2d, want of neatness throughout the entire dairy; 3d, want of attention; 4th, suffering the milk to stand too long before it is skimmed; 5th, cream not kept sufficiently cool, and standing too long before it is churned, making the butter soft, sour and worthless.

There were submitted for premiums some six or seven applications for butter, and five or six for cheese. The manufacturers of both the butter and cheese were unknown to the committee. The different specimens were numbered, and the premiums awarded on the numbers. The names of the persons to whom the premiums were awarded were taken from the Secretary's book, after the committee had decided.

The committee were unanimous in pronouncing the best specimen of butter offered, and it was of the very best quality, to No. 155, (presented by Mrs. L. Sackett, of Raisinville,) and award to it the first premium of..... $3 00

2d best, No. 176, Mrs. D. E. Morris, Raisinville,..... 2 00

3d best, No. 172, Mrs. P. Loose, Ida,..... 1 75

4th best, No. 87, Mrs. J. L. Montgomery, Ida,..... 1 50

5th best, No. 83, Mrs. J. Johnson, Ida,..... 1 25

The fault with No. 83 was, it had too much salt. No. 171 was a little rancid. No. 179 was sticky; the cream was left too long before it was churned.

Of the cheese, the committee are of the opinion that there was none which should be entitled to the premium as *first quality cheese*. They award the following premiums:

Best, No. 138, Mrs. M. Hurd, Frenchtown,..... $2 00

2d best, No. 82, Mrs. J. Johnson, Ida,..... 1 25

Best sage cheese, Mrs. M. Hurd,..... 1 75

There were but two specimens of honey presented, neither of which, in the judgment of the committee, was first rate, but they award to No. 184, to W. H. Rogers, a premium of $1.

The committee cannot conclude their report without noticing in the

most favorable manner some fine specimens of bread, biscuit, beef and sausage, exhibited by Mr. P. Fishburn, who showed conclusively to the committee his ability and capability of administering in the most palatable manner to the wants of the inner man.

CHARLES NOBLE,
R. LAWRENCE,
MRS. M. PAULDING,
MRS. JAS. MULHOLLAND,
MRS. M. TRACY,
Committee.

FIELD CROPS.

The committee appointed to examine field crops, respectfully report that in the discharge of that duty they have visited various parts of the county, and notwithstanding the season has been very unpropitious to the farmer, they are assured by ocular demonstration that he who vouchsafed to man a seed time and harvest, has not been delinquent.

From the peculiarity of the season (the excessive and continued rains) they have observed more particularly than in times past, the advantages as well as the necessity of thorough drainage. In a county situated as is the county of Monroe, with a level surface, rich in the elements of vegetable deposit, yet having a tenacious subsoil, it is all important to successful cultivation, that ample drains should be provided for the discharge of surface water; and your committee would advise that instead of extending the area of cultivation, the farmers devote their energies, by thorough drainage and the extirpation of noxious and useless weeds, to the increased productiveness of the land already under a partial state of improvement.

Among the crops examined by your committee, and which they recommend for premium, is a crop of wheat raised by Peter Loose, of La Salle, as set forth by his affidavit in the following report:

Peter Loose being duly sworn, deposeth that the crop of wheat on which he asks a premium, was cultivated as here set forth, to wit: The ground being a sandy loam on a clay subsoil, and in sward, was broken up to the depth of eight inches, before harvest, after which it was harrowed three times, and cross-plowed the first of September, and sowed

with Soules' wheat the second week in September, and harvested the second week in July, and he verily believes that were it not for the untoward season he would have had 40 bushels of wheat to the acre, and that there were 16 acres of said wheat.

Your committee having examined said wheat while in progress of harvesting, concur in the statement as made by Mr. Loose, and recommend that he receive the first premium for the best field of wheat. There was application for a premium on a field of corn raised by Daniel E. Whitington, the process of cultivation described by him as follows:

Said land was plowed the first of May, by turning a furrow at the distance of 7½ feet, and filling the same with manure, at the rate of a load to forty rods, then turning another furrow on the manure, planted the dent corn with a drill on the 20th of May. Cultivated and hoed when corn was up, plowed out the remaining part of the land when corn was six or eight inches high, leaving a dead furrow between the rows to draw the surface water from the corn. The yield of said crop, as by affidavit of Joseph W. Hall, is 160 bushels of ears per acre, and your committee recommend that he receive the first premium for the best crop of corn.

All of which is respectfully submitted.

W. H. MONTGOMERY,
A. J. KEENEY,
MILO TRACY,
Committee.

DOMESTIC MANUFACTURES.

The discretionary committee report, that owing to the want of time and the crowded state of the Hall, they were unable to be as precise and particular as they would have desired. In their examination they found a great variety of articles which added much to the display, that were not manufactured in the county, and hence not entitled to premiums. Among these were the two show cases of Messrs. Clark and Boyd, and a rich display of fancy work and goods by Mrs. Kendall, a handsome exhibition of hardware and cutlery by Mr. Boyd, and two domestic flannel counterpanes, understood to have been woven abroad.

Your committee would notice what was new to them, a beautiful steel horse-shoe, which they deem important, and award a premium of $1 to Geo. Custer.

A general variety and handsome display of edge tools, premium $1, to Wm. Kennell.

A piece of 36 yards of beautiful rag carpet, understood to have been woven by a lady 82 years of age, premium $1, Mrs. Crofoot.

A piece of fine striped cotton flannel, suitable for ladies' apparel, premium 50 cts., Mrs. Galloway.

The display of fancy worked bed quilts being large, and all showing a great deal of labor and skill, your committee would recommend to:

Mrs. Loose, premium of	$1 00
Mrs. H. Lawrence, "	75
Miss Sarah Hack, "	50
Mrs. E. B. Root, "	25
Mrs. Galloway, handsome kersey blanket,	50
Mrs. P. Loose, superior white wool fulled blanket,	50
Mrs. Sackett, lamb's wool stockings,	25
Mrs. Doty, woolen socks,	25

There was a fair display of fulled cloth, but part of the numbers being missed no premiums are awarded.

D. S. BACON,
Chairman.

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FINE ARTS AND FANCY WORK.

There were presented for the observation of the committee, a variety of crochet, needle and worsted work, most of which evidenced skill, taste and patience deserving the most favorable notice. The committee were particularly struck with the beauty and taste displayed by Mrs. A. Morton, a lady between 70 and 80 years of age, in some lace embroidery, as well as in the large amount of her work exhibited, and in its variety, durability and beauty. There was also on exhibition a beautiful variety of worsted and leather work, all of which was most tasteful, presented by the Sisters of Charity—some beautiful lamp-mats and other worsted and crochet work, presented by persons unknown to the

committee, and one bed-spread of beautiful crochet work, made by a little girl ten years of age, all of which, in point of beauty, taste and durability, was all the most fastidious could desire. Also a what-not of leather work, by Miss Baldwin, of Raisinville, which was particularly beautiful. The only regret the committee have had in examining these fine specimens of taste and art, submitted to them, arises from the fact that there is not money enough at their disposal to enable them to award premiums to all. There was likewise on exhibition some most tastefully arranged boquets, with two specimens in wax. In this department the exhibition was not large. We trust more attention may be paid to this hereafter. With some the love of flowers is a passion, and we wish we could say something to induce our fair countrywomen to give more attention to the cultivation of them. Placed within the reach of the humblest individual, what pastime more delightful than the cultivation of flowers. The most ordinary and commonplace dwellings, covered with climbing plants, and the enclosure embellished with flowers, immediately becomes a beautiful object, and involuntary pre supposes refinement and education within.

There were likewise some fine specimens of paintings, pencilings, and crayon which were deserving of praise; showing a refinement of taste far in advance of what we supposed existed in our county; and as works of art, highly creditable to our people. When we see them we must feel how refining and charming is their influence, even upon the most uneducated. The cultivation of the arts exercises a kind, moral influence, while struggling with the rough world. Mr. S. Duncanson's paintings were highly finished, soft and beautiful, and highly creditable to his artistic taste. Mr. Trost's basket and box work was also highly finished, tasteful and beautiful. On the whole, the committee were highly gratified with the exhibition in this department; and as the eglantine, jessamine and roses entwine the lattice, so the fine arts, by their soft, moral and refining influences, wreathe on hearts the most delightful reflections.

In awarding the small amount of money placed at our disposal, the committee distribute it as follows, not as pay for the labors bestowed, but as a token of the estimation in which this department of industry is held by the committee, and as an evidence that this department of labor should be properly appreciated:

Miss Baldwin, leather what-not,	$0 75
Augusta Trost, crochet bed-spread,	50
—— Tull, 10 years old, embroidery,	37
Elizabeth Manning, crayon,	50
Mary Skinner, tidy,	50
Unknown, tidy with tassels,	37
Eliza Keeney, skirt,	40
Jane Smith, crochet collars,	40
Mrs. A. Morton, "	40
Miss Baldwin, embroidered collars,	40
Mrs. M. L. Adams. "	25
Mother Theresa, worsted work on hair cloth,	37
Mrs. G. King, table cover, worsted work,	50
Mother Theresa, worsted work on cloth,	25
" lamp mat,	50
Emily Paulding, "	37
Mrs. G. King, worsted work, lasting cloth,	50
G. Trost, work boxes and baskets,	75
Mother Theresa, leather work, frame,	30
S. Duncanson, sign painting,	75
Elizabeth Manning, painting,	50
Mrs. H. Haskins, wax bouquet,	25
Mrs. Fishburn, boquet,	20
Seminary, painting,	50
Unknown, wax bouquet,	20

There were some good paintings entered by S. G. Clarke and J. M. Sterling, but understanding they were executed by artists without the county, no premium was awarded. There was also an embroidered monument exhibited by Mrs. Galloway, which the committee considered very pretty.

MARGARET KIRBY,
MARY FARWELL,
SARAH ST. JOHN,
HARRIET LEWIS,
SARAH A. WARDELL,
CHAS. NOBLE,
Committee.

FRUITS.

The committee on fruit respectfully report, that in the discharge of their duty they have been much gratified in the examination of a greater variety and better quality of fruit than has hitherto been exhibited at our county fairs.

The committee discover a prevailing disposition among fruit-growers to esteem size, and not quality, a *sine qua non*. With judges of good fruit, however, this is not so much the case. And we would recommend to our agricultural and horticultural friends, that in their exhibitions and selections of fruit and fruit trees, to be more tenacious as to quality and keeping properties.

Your committee award the following premiums:

Best bushel winter apples, Peck's Pleasant, Inglefritz & Bentley,		$1 00
2d " "	Baldwin, Inglefritz & Bentley,	75
3d " "	Seeknofurther, do.	50
4th " "	Flushing Spitzenburg, Inglefritz & Bentley,	25
Best peck of pears, Flemish Beauty, W. Wilks,		1 00
Best six varieties of five apples each, Inglefritz & Bentley,		50
Best half-bushel quinces, Mrs. B. W. Latham,		50
2d " "	Geo. Haskell,	25

W. H. MONTGOMERY,
C. T. CADY,
H. BISBEE,
WM. P. HUBBLE,
Committee.

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REPORT ON HORSES.

Your committee notice with pleasure the increasing interest manifested by the farmers of our county, in rearing good horses.

The number and quality of those on exhibition this year, is vastly superior to those of any previous year.

This beautiful and useful animal has heretofore been bred among us without much regard to the purposes for which they were intended.

If one occasionally proved a good saddle, carriage, or draught animal,

it was more the result of chance and accident than design, and the consequence is, that we have an assorted lot with few fine specimens for any particular purpose, among those raised in our county.

From the fine show of one, two and three year old colts on the ground, it is evident that this branch of agriculture is having increased attention throughout the county.

The rearing of good horses, we believe, may always be regarded as a profitable business, particularly in a county so well adapted to grazing as ours.

Your committee cannot, in the short space of a report, notice as they wish, many deserving animals competing for premiums in all the different classes. They regret that the classification in regard to stock horses was such that injustice is necessarily done in compelling the two and three year olds to compete with the fully developed horses.

The fine gray stallion, No. 140, belonging to S. B. Wakefield, being the only full grown animal presented, is duly entitled to the first premium. A fine Black Hawk colt, three years old, No. 151, belonging to Sterling & Wakefield, to the second, and a bay, two years old, No. 43, belonging to B. Hack, to third premium.

Your committee, in the examination, gave the full grown horses the first, and then decided between three year olds for the second prize, and after between the two year olds. A very fine bay, three years old, No. 91, belonging to John Chase, and a two year old, No. 30, belonging to G. H. Sherman, are entitled to favorable notice.

Among the brood mares and colts are some fine stock. No. 61, the property of John Hanson, is deemed the best; J. M. Sterling's, No. 95, the 2d best, and No. 114, Frank Gale's, 3d best.

The show of colts from one to three years old, was very fine indeed. A large number on exhibition are highly creditable to our county; and many we cannot award premiums to, are particularly deserving of notice, promising to make fine specimens of more than ordinary horses.

We regret the want of time to give a more particular notice of some of them. We award to John P. Rowe, for No. 178, the first premium of $2; to R. Hendershot, No. 84, the 2d premium, $1; to I. R. Grosvenor, for 108, the 3d premium, $0,75, on three year old colts.

Of the two year olds, we award to Milo Tracy, for No. 65, the first premium, $2; to D. E. Morris, on No. 138, the 2d premium of $1.

On yearlings we give the preference to G. H. Sherman, on No. 29, $1; to A. G. Bates 2d premium, $0,50 on No. 122.

Several excellent spans of matched horses entered the ring, giving unmistakable evidence of being properly classed. From among them we selected No. 39, Horatio Hurd's, for the first premium, $3, and No. 14, Hurd & Gibson's, the 2d premium, $2. A large span of horses, and a lesser sized span of sorrels, demand notice as valuable and substantial teams.

The matched horses entered were not as good as should have been, judging from what the committee noticed on the ground and in the streets. In fact, there was not a closely matched span presented for premium. A lively span of bay colts, No. 113, Geo. Armitage's, we deemed the best, and a smaller sized span of iron-grays, No. 174, Geo. King's, the 2d best.

The show of single ponies was small but very good. J. M. Sterling's, No. 94, we deemed the best, and 183, E. Cicott's, the 2d best.

No. 129, belonging to A. G. Bates, we think is entitled to the premium on best saddle horse, $2.

The matched ponies excited considerable admiration and strife. Some beautiful, lively animals contended for the only prize your committee had power to award; and that they award to Dan. T. Cole on No. 23, span of blacks, $2.

The contest for the mastery among single horses was spirited. Several fine animals were on the ground, many evincing considerable speed and fine action.

All appeared exceedingly well; a fine bay and gray attracted notice and were much admired. The committee hesitated between No. 180 and a fine Morgan, owned and driven by Col. Jas. Darrah, when the Col. hearing that 180 was owned by a lady, with characteristic gallantry he withdrew from the contest, and we therefore awarded the premium to No. 180, Mrs. E. J. Boyd's, and recommend a vote of thanks from the ladies to Col. Darrah.

I. R. GROSVENOR,
GEO. GRAHAM,
G. BALDWIN,
H. ANGEL,
W. HANSON,

Committee.

AGRICULTURAL IMPLEMENTS.

The committee on agricultural and other implements respectfully report that they have examined the various implements on exhibition, and are happy to say there is a very respectable display in this department. The committee report the following premiums: To J. F. Smith a premium of $2, on Long's improved plow, as the best manufactured in the county—plows made out of the county not coming in competition. To P. Loose, $1, for best scraper for cleaning furrows; to H. Durell, $1 for best cider mill; Geo. Custer, $1 for best straw-cutter; 2d best, E. B. Root; to W. H. Boyd, for best corn-sheller, $1; to J. F. Smith, $1 for best corn-sheller made in county; Geo. Custer, $1 for best corn cultivator; R. Nims, $3 for best two-horse wagon; J. Little, $2 for best fanning mill.

A. J. KEENEY,
JAS. MULHOLLAND,
A. RAGAN,
A. ROWLEY,
Committee.

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GRAIN AND VEGETABLES.

The committee report, that, considering the past season so unfavorable to the production of grain or vegetables, your committee think the show in this department far surpassed any ever exhibited in this county at their annual fairs, and would have compared well with the State fair in quality, if not in quantity. Your committee felt some embarassment in awarding premiums on corn and potatoes, as there were several parcels shown of the same varieties and of nearly equal merit; your committee would also notice favorably some very tall corn, (said to measure 18 feet,) grown by Charles Noble, and some of a smaller variety, grown by Mr. Sherman; also a few stalks of corn grown by David Antillia, having four or five ears on a stalk; and your committee would also state that there was exhibited some fine specimens of tomatoes, squashes and cabbages which are not included in the list of premiums.

Best bushel of seed wheat, Robert Hendershot,..... $1 00
2d best bushel of spring wheat, Michael Fishburn,..... 50
Best bushel of ears of corn, R. P. Johnson,..... 50

2d best bushel of ears of corn, Robert Hendershot,	$0 25
Best bushel of beans, John Johnson,	50
" of potatoes, "	50
2d " " H. Bisbee,	37
3d " " J. Wickam,	25
Best bushel of beets, R. H. Rogers,	37
2d " " G. P. Haskell,	25
Best 3 yellow pumpkins, George Mandaville,	50
Best specimen of squash, J. M. Thurber,	
Best variety of vegetables, G. P. Haskell,	1 00
2d " " E. C. Harvey,	50
Best peck of sweet potatoes, G. P. Haskell,	50
2d " " E. C. Harvey,	25
Best bushel of oats, D. Chapman,	

THOMAS CLARK,
W. P. GALE,
D. MORRIS,
E. REYNOLDS,
WM. R. NOWLEN,
Committee.

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SHEEP.

The committee on sheep have performed the duty assigned them, and report that but few of the long and fine wool were on exhibition. In most cases the committe discovered but little improvement since our former fair. They report, fine wool, best buck, S. Dunham; 2d best, H. Hurd; 3d best, J. Doty; best ewe, —— ——; best pen 5 lambs, D. E. Morris; 2d best pen 5 lambs, D. E. Morris. Long wool, best buck, W. H. Wells; 2d best, J. P. Rowe; 3d best, D. E. Morris.

The committee recommend a premium on Southdowns, to Mr. ——.

WM. DUNBAR,
HENRY B. MARVIN,
PETER BENSON,
BETHAEL HACK,
SAM'L COOPER,
Committee.

CATTLE.

The committee report as follows:

To H. Hurd, for best grade bull,	$4 00
John Mulholland, 2d best "	2 00
J. M. Sterling, 3d best "	1 00
R. P. Johnson, best grade heifer 1 year old,	2 00
H. Hurd, 2d best " 1 "	1 00
J. Mulholland, best bull calf,	2 00
R. Hendershot, best grade heifer calf,	2 00
Thos. Burns, 2d best " "	1 00
L. Darrah, best milch cow of any breed,	3 00
A. G. Bates, 2d best " "	2 00
Wm. Dunbar, 3d " " "	1 00
C. T. Cady, best fatted ox,	4 00

J. P. ROWE,
I. P. MARVIN,
Committee.

DURHAMS AND DEVONS.

The committee on Durhams and Devons award premiums as follows:

G. Graham, best Durham heifer,	$2 00
" 2d best "	1 00
S. Dunham, best bull,	4 00
G. A. Strong, 2d best bull,	3 00
G. Graham, best bull calf,	2 00
" 2d best "	1 00
A. G. Bates, best heifer calf,	2 00
" 2d best "	1 00
I. R. Grosvenor, best Devon bull,	4 00
Royal Johnson, best heifer,	2 00
" 2d best "	1 00

H. G. LATSHAW,
W. WING,
Committee.

WORKING OXEN AND STEERS.

W. R. Stimpson, best pair working oxen,	$3 00
Jas. Stone, 2d " "	2 00
J. Johnson, 3d " "	1 00
S. B. Lewis, best 3 year old steers,	3 00
Geo. Graham, best 2 year old steers,	2 00
Wm. Plues, best pair 1 year old steers,	2 00
R. Hendershot, 2d best pair 1 year old steers,	1 00

A. J. NICHOLS,
WM. KNIGHT,
Committee.

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SWINE.

The committee award to R. Johnson, for best boar,	$2 00
Geo. Hurd, best sow and pigs,	2 00
J. M. Sterling, 2d best sow and pigs,	1 00
John Heritage, best fatted hog,	1 50
Wm. Dunbar, 2d best, "	1 00

The committee recommend a premium to R. P. Johnson, of Frenchtown, for six handsome Suffolk pigs, and there were other fine swine deserving commendation, as well as fatted hogs.

J. JOHNSON,
Chairman.

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PLOWING MATCH.

The committee report that the east land, plowed by Wm. Hanson, is entitled to the first premium; the west land, by H. Hurd, to the second premium.

JAMES MULHOLLAND,
PETER LOOSE,
LUTHER HARVEY,
THOMAS CLARK,
GEORGE GRAHAM,
Committee.

ELECTION OF OFFICERS.

On the 11th the Society elected the following officers for the ensuing year:

President—Alfred G. Bates.

Vice Presidents—H. Angel, G. Baldwin.

Executive Committee—L. Darrah, H. Hurd, G. Graham, Wm. Dunbar, R. Nims.

Secretary—E. G. Morton.

ADDRESS

DELIVERED BEFORE THE MONROE COUNTY AGRICULTURAL SOCIETY, AT ITS SIXTH ANNUAL FAIR, OCTOBER 11TH, 1855, BY THOMAS M. COOLEY, ESQ.

Mr. President, Ladies and Gentlemen:

The mind of man is prone to underestimate present things, and to invest with enchanting haloes the objects that loom up to its vision in the dim regions of the past.

At our annual agricultural anniversaries, it is worth while occasionally to review our real progress, to compare the present *status* of agricultural science with its position in the past, and while cautiously endeavoring not to be deceived by our enthusiasm for new improvements and experiments, at the same time guard against being led astray by our propensity to regard the past as the good old times when men were better, and nature itself more accommodating and bounteous than now.

The most prominent thing that presents itself to our mind as we begin this review, is the fact that within the last few years the enemies of the farmer have seemed to increase with great rapidity.

The early apostles were fond of likening the progress of the Christian through life, to a warfare, the subject of which was constantly beset by snares, assailed by open and entrapped by concealed enemies, his weak points insidiously approached with temptations, and his patience taxed with innumerable obstacles, till at length, unless sustained by superhuman aid, he falls wearied and discouraged by the way side, and yields himself up with but faint resistance to his great enemy.

The progress of the farmer through life has always been more than

a mere figurative warfare—it is a real and constant struggle with enemies who assail his works at all points, and require the utmost care and watchfulness to prevent the total annihilation of his anticipated gains. If the agriculturist had no enemies—if he had but to plow his lands and sow his seeds to enable him to reap an abundant harvest, he would be relieved of by far the larger portion of the cares which now press upon him. But a besieging general never watched with more eager eyes a new breastwork thrown up by the enemy, that he may seize upon the most fitting moment to turn his destructive batteries upon it, than does some enemy of the farmer watch every operation from seed time to harvest, for the purpose of rendering his labors in vain.

But it is a startling fact, if, as we believe, the number of these enemies and their destructiveness are increasing year by year. I mean by enemies, not simply living things that prey upon our crops, but the pestilences also that seize upon them, and that are so destructive in their character as to render it problematical with at least one crop, whether when the farmer commits his seed to the earth he will harvest as much as he plants.

Let us review for a moment the list of these enemies—see if they are not thickening around us and becoming daily more formidable, and what, if such be found to be the case, it becomes us to do in the emergency.

The most important article of human food we produce is wheat. Habit seems to render it almost impossible for us to do without it at a single meal. The families are few, even among the poorest, that consent to dispense with it at all, even when the equally nutritious and almost equally agreeable corn food is much less expensive.

The wheat crop has its abundant enemies, and always has had; but one of them but recently appearing among us, seems likely to prove far more destructive than all the rest. Up to last season, the wheat midge, or the weevil, as we commonly call it, was a stranger to our State, and though we heard of it as approaching us from the east, from whence all pestilences come, we could scarcely anticipate the overwhelming visitation which it made us last summer. This year, the extraordinary season that nearly ruined the crop in another manner, has saved us from its ravages, but the foe is now planted among us, concealed by its insignificant size from our attacks, and threatening every year to

pounce upon the fruit of our labors, and destroy our prospects at the very moment when we think we are about to reap an abundant harvest.

The next crop that contributes most largely to our tables is the potato. So prolific in its yield, so grateful to the palate in the various forms in which it may be cooked, and so good a substitute for any other vegetable food, that it has aptly been styled the poor man's bread, and to the poorest and most distressed nation in Christendom, it has become so much the chief article of diet as to have been re-christened the Irish potato, though but comparatively a new emigrant to that island.

Potatoes and bread every man must have, but if one be so poor that the bread is unattainable, which happily in this country is rare, a little spot of ground, bought or hired, suffices for a year's supply of this delicious vegetable, and Providence seems kindly to have endowed it with such properties as to make this cheap food no mean substitute to the poor man for many things that load the table of the prosperous farmer.

The importance of this vegetable as an article of food can be best appreciated by remembering how frightfully near a whole nation came to starving a few years since, principally from the failure of this crop, and that as it was, thousands of the poor Irish sunk starving to their graves before the liberal bounty of the world could reach them.

The mysterious disease of the potato that thus far has defied investigation, and baffled all enquiry into its origin, its character or its remedy, seems permanently fastened upon us. Agricultural Societies have been liberal in their offers of premiums for a reliable remedy, individuals have stepped in and offered large rewards for successful experiments, while other individuals have published pamphlets for sale, and after taking the purchaser's money and pledging him not to divulge the secret, though they have entirely failed to give him light as to the nature of the disease, have at least taught him wisdom by reminding him anew of the old adage, never to buy a pig in the poke.

Indeed, so mysterious is the disease that a citizen of Michigan, who has looked deep into the other world through the aid of spiritual manifestations and table dancing, thinks he has discovered in it something akin to human depravity, and publishes a pamphlet in which he traces the potato pestilence to the disarrangement of that great electrical system which keeps worlds moving in their sphere, and the dead out of their graves.

Passing into the domain of horticulture, the view is still more startling. Our standard fruit, the apple, we still raise cheaply, and can rely with tolerable certainty upon a crop every second year, but we cannot shut our eyes to the fact that the ravages of insects upon this fruit are growing worse and worse every year. The mischievous boy will hesitate now in gratifying his appetite with stolen fruit of nights, for though he may know the locality of the trees, and supply himself with delicious pippins and rambos, he cannot tell unless he has day light to aid him, whether it is pure apple he is eating, or with the melting fruit he is crushing the writhing worm between his teeth; and the lovers of good old cider, or the sweet beverage fresh from the mill, would hardly like, as they smack their lips over their accustomed drinks, to enter into careful calculations as to the proportionate amount of vegetable and animal of which it was composed.

Latterly, too, a worm attacks our old apple trees at their roots, and completely destroys them by girdling them just below the surface of the earth before we are aware of their attack. Several times, lately, I have been called to part with a cherished old friend destroyed in this manner—a valuable fall pippin, or a Spitzenberg that yearly had been accustomed to shower his abundant crop of blushing fruit into my baskets. Before we are aware of their danger, the fruit begins to wither, the leaves prematurely turn yellow—we hasten to apply the remedy, but the mischief is already done, and we must wait patiently for another to grow up to supply its place.

The peach, too, is subject to the ravages of insects, and that to a degree much greater than the apple. The attacks of the borer, however, closely watched and frequently checked, will terminate its existence in a few years, at the farthest. And within a year or two a small brown beetle has made himself troublesome by selecting the largest and ripest specimens, eating his way into them, and seeming to poison the whole peach, which decays around him with great rapidity, and falls a sightless mass to the earth.

But a disease also attacks this tree to which, as yet, we are here total strangers, but whose unwelcome visits we have every year reason to expect. I mean the yellows—a sort of vegetable scrofula, which sweeps away whole orchards, and transmits itself in the graft or in the pit to succeeding generations. The disease probably affects even the fruit, for

it is notorious that the rare-ripes and early Yorks of New Jersey are deteriorating year by year, and that if one would now seek this fruit in its greatest perfection, he must leave the seaboard and visit the clearings of Michigan or the prairies of Illinois.

And the pear, too, that luscious fruit, to perfect which many a gifted man has devoted a whole life, and orchards of which of three hundred, five hundred, and even a thousand varieties, may be met with in New England—the pear, too, is of late subject to a frightful calamity, so destructive in its effects as sometimes to sweep away whole orchards in a single season, and yet so mysterious in its character that it seems still to be a mooted question whether it is strictly a disease or the result of an attack by some poisonous insect. The pear blight, too, is as yet unknown among us, but it is steadily marching to the west, and we may greatly fear that the time is not far distant when some of the noble old trees that were planted by the early French settlers upon the Raisin, will feel its devastating effects.

And here let me pause a moment to remark that our position in the west is, if rightly improved, of great advantage. The diseases and the insects that attack our crops, first make their appearance to the east of us—some of them in Europe, and others upon our national seaboard. They are for the most part many years in making their way west of Lake Erie—our friends at the east, with whom we are in constant communication through the agricultural journals, give us the benefit of their experience and of their experiments for years before they become of practical importance in our own labors, and we are thus, or should be when the pests appear among us, several years in advance of where our eastern friends were when similarly visited.

It may be that when it comes, it will come like the potato rot—still as destructive and mysterious as when it first appeared—but if experience has taught anything in respect to its nature or the remedy for it, we have the whole benefit of that experience without undergoing any of its disappointments or its disasters.

The plum crop seems to be hopelessly lost to us, at least for the present. With us the tree is still healthy, though in the eastern States the black knot not only disfigures the trees, but is sapping their vitality and threatens to prove as destructive to them as the yellows is to the peach orchard. But it matters little to us whether the tree survives or not, so

long as the curculio strips it entirely of its fruit, and leaves us when fall comes not even a memento of the crop that should have been there. Twenty years ago the plum orchards along the Hudson, and through central and western New York produced in such spontaneous abundance that he was fortunate who could sell the crop at eight, six, or sometimes even four shillings a bushel. So great has been the change since then that I have this year been assured by a gentleman noted for his noble Washingtons and imperial Gages, that five dollars would not more than pay the actual labor that must be expended in saving a single bushel from the ravages of this insect. Indeed, the plum tree may be said to be no longer serviceable, and to be occupied by the curculio simply as a fortress from which he may sally out and lay waste our apricot, our nectarine, and our cherry orchards.

When we recall to mind all these disasters and many others that are increasing upon us, we have a right, perhaps, to look back with some regret to the good old times when the apple was an apple, and not a nest for grub worms, and when the plum was of further service than merely for an offensive beetle to lay his eggs in.

But wherefore is it that disasters are thus crowding around the path of the farmer? It is certainly not the case that Providence is less kind than formerly, or that any of the great laws of nature have been changed for the purpose of bringing disappointment to our labors, or that the rain any the less falls, or the sun less shines upon the just and the unjust, than in the days of our fathers. There is a cause for the increase of destructive insects upon us, and none the less is there a cause for which the farmer, unintentionally, doubtless, is responsible, for the diseases now prevailing in the vegetable kingdom.

As to these diseases, it would scarcely be worth while for me, in a brief address like this, to make much remark. I can only say that thus far the investigations of the scientific have proved greatly in fault, and that for the most part they are the necessary consequence of a long cultivation of crops in a state differing materially from their natural state. Almost everything we now cultivate is in an improved condition—the potato has been improved from a nearly worthless root to the valuable edible we now find it—wheat is thought once to have been but little better than the chess into which so many men fancy it still turns—and the peach was once a bitter fruit, which cultivation has brought up

to its present deliciousness. The Suffolk swine, so perfect in all their proportions, are of the same descent as the long-nosed, slab sided land pike, so often seen in the highways, and which can never be fatted, from the fact that the more you feed them the more they wear themselves down to skin and bone in the desperate voraciousness with which they eat it. But nature sets bounds to this advancement, and while rewarding to the utmost our endeavors towards improvement within certain limits, seems then to fear that our exertions may relax as their effects prove less noticeable, and just as we fancy a certain fruit or vegetable has attained perfection, some malady seizes upon it, and the cultivator is compelled to go back again to first principles, and in a great measure begin anew his work of improvement.

The rapid increase of our insect enemies, is probably to a considerable extent our own fault. Many of us wage incessant warfare upon the very means provided by nature for their extermination. But for the birds which Providence has created to keep the insect hordes in check, we should be utterly overrun by them, and they would creep into our houses and upon our tables, and devour our food before our eyes, as the plague of frogs did with the hard hearted Egyptians. Almost all the birds of heaven are furnished with appetites which crave insect food, and the number a single flycatcher or robin will destroy in the course of the day is astonishing. They perch upon our fruit trees to watch for them, they dart before our doors to catch them on the wing, and they follow the plow to pick up the grubs in the furrow. The farmer has no better friends than the birds—none who work so incessantly for him, and whose support costs him so little. I do not now recollect a single one of the smaller birds, except, possibly, the cedar or cherry bird, that could well be spared. That little pest is a perfect profligate in the cherry tree, not only overloading his stomach with the ripe fruit, but picking into and destroying far more than he eats. The robin, too, devours cherries, but the few he takes would but poorly pay him for protecting the orchard from the countless insects upon which he feeds through the year. The martins, the whole tribe of the thrushes, the flycatcher and the woodpecker families, and almost all the rest, feed to a great extent upon destructive or troublesome insects—and not only so, but are our only protection against them.

Many a farmer have you all seen who delights in gunning a little, and who, when large game is not to be found, contents himself with destroying the robin and the meadow lark—not to make use of them, for that he does not do—but simply for want of other mark to shoot at, and from an unaccountable desire to destroy life. He teaches his boys, also, to do the same, and if, through the week, they find no time to devote to this amusement, the Sabbath is very likely given up to it. As a consequence, the birds are shy of his premises—they do not, indeed, steal an occasional cherry, as they were before in the habit of doing, but they let in instead a thousand varieties of insects to increase and multiply unmolested. The farmer finds his trees filled with caterpillars, his house overrun with moths, the apple worm growing more destructive every year, the curculio making sad ravages among his plums and cherries—he does not stop to consider that this, in a great measure, is his own fault—perhaps he resorts to some expedient to check the evil, hangs up bottles of sweetened water in his trees, which may catch one insect where birds would destroy a hundred—invents fly traps, sets his wits at work to study out curculio remedies, and all the while keeps wondering why it is that Providence permits the scourge thus to increase upon him. Yet he himself, wantonly and recklessly, is thwarting one of the principal designs of Providence in filling our woods and fields with the tribe of songsters; for however ornamental or musical they may be, the main object of their creation, so far as that object had reference to man, was their utility as a counterpoise upon the multiplication of insects.

Think me not trifling, then, in putting in this earnest appeal for the birds. I do not believe this a mere trifling matter, but one of the utmost importance, especially to the horticulturist. Fruit is becoming every year a larger proportion of our food—we raise more than we did formerly, and with the new contrivances for preserving it, we shall probably soon be able to have it fresh upon our tables at all seasons of the year. If love of the beautiful, if the charms of the sweet songs which through the warm seasons are poured forth from every thicket and every tree, if the sprightly motions of the songsters, as they hop from spray to spray, fail to arouse a sympathetic chord in our bosoms, let our grosser nature at least protect them, and a desire

for good fruit induce us to pay some heed to the preservation of the little birds with whose aid alone the fruit can be raised. Why is it that insects with their wonderful rapidity of increase do not wholly overrun us, and destroy alike our prosperity and our repose? Why, simply because God has stocked our woods and our fields with countless varieties of birds which day and night wage incessant warfare upon them, and thus accomplish that for which all our own devices are wholly insufficient.

But let us not think that the difficulties which thicken around us of late are unalloyed evils. On the contrary, I believe that in one respect at least they have been and are now being productive of essential advantage. Say what we will of the high and noble calling of the farmer, the fact is apparent to the most obtuse perception that in public estimation the business has hitherto been looked upon mainly as a drudgery, in which the hands had much and the mind but little to do—as a business in which men might engage who had neither the shrewdness for a successful merchant, the mental application that makes the lawyer, or the habit of observation without which one cannot be an eminent physician; though every year, about election time, the candidates who want votes would canvass the country and talk about its noble yeomanry, and laud to the skies the honest laborer who wields the spade and the hoe, though taking especial care to avoid soiling their own fingers with either—yet the real dignity of the agricultural profession has been always looked upon as a thing rather to be talked about and boasted of than to be really believed in.

Farmers themselves are principally to blame for this; it is their fault if their employment has been thought less worthy the ambition of the intelligent and enterprising young man than some other callings. I repeat but a well known fact when I say that in ninety-nine of every hundred cases where the farmer selects one of his sons as unusually bright and apt to learn, and provides him with the means of a better education than he affords the rest, he does so with a view to placing him in some other occupation—behind the counter, or in the teacher's desk, or in one of the professions. He thus tacitly holds out to the world that the life of the farmer is a physical drudgery merely, and that the active mind is unsuited to it, and finds its proper sphere elsewhere. The true dignity of labor will be properly understood and

appreciated only as men are educated to do what they do with their eyes open and their minds busy about their labor. The drudge who plows just as his father plowed, and makes a meadow of his orchard because his father always did so before him, and plants the same field to potatoes every year because he never heard of his father putting it to any other use, may be one of the sterling yeomanry that politicians tell us about, and may poll at election as straight a ticket as any body, but he is far from giving any dignity to his calling, or of being one to whom we can point as a proper representative of this most important as well as most pleasing occupation of man.

But, however it may have been in the past, the drudge can no longer be the successful farmer. In the new exigencies that now spring up around us, the agriculturist must be educated to his business—he must be a man of observation—one who has his mind upon his labor, and who will make the most of his experience, and study out for himself how he shall meet the new difficulties to which his father was a stranger. No! send the dolt anywhere but on the farm—place him behind the counter if you will, for he can measure tape with the best; or make an attorney of him, and if he possess plenty of impudence, the public may mistake his impudence for talent, or make a doctor of him, and the less he knows the more he may succeed, for the world has a great admiration for quackery—but don't turn him upon the farm, for every furrow he plows but exposes his folly—the weeds grow up to reproach his thoughtlessness, his cattle pine for want of the skill to care for their wants, his very soil grows thin and poor under his management, and finally refuses to yield out of sheer disgust.

It is frequently said that legislatures keep constantly altering the laws to benefit the lawyers by the litigation which such changes almost necessarily create. Your Secretary or some of your other members who have had experience as legislators, may be able to give us some light on this subject—for my own part, though I cannot say that the remark as made is strictly true, yet I think I may safely say that these changes, and the study they force upon us to keep up with them, do a great deal towards preventing a considerable portion of our profession from sinking into inane and dumpish old fogyism. The weevil and the potato rot act upon farmers a good deal as legislatures do upon

lawyers—rouse up into action their dormant energies and their sleepy wits.

Farmers of Monroe! Let me say to you, as you honor your occupation, educate your sons thoroughly to it, and teach them to respect it by making it worthy their respect. Do not think or act as though you thought that anybody knew enough for a farmer—if you do, you may find much to your regret that your most intelligent sons will leave you to seek elsewhere that field for active minds which you do not provide them with at home, and that your daughters, too, will find their country home irksome to them, and feel under the ban of society, when they should be its brightest ornaments. But take an opposite course, and though politicians may *say* less about the "honest yeomanry," they will *think* a great deal more of them.

I cannot stop now—for I dread to make these remarks tedious to you—to recapitulate the progress agricultural science has been making in the past few years. That progress has been unprecedented, though hereafter we cannot doubt it will be still more rapid. As I look around upon your exhibition to-day, I see that here you have been fully up with the times. Your noble fruit, your enormous vegetables, your excellent specimens of grain, your choice stock, your matchless horses, all give evidence that old Monroe has indeed among her agricultural population men who honor their profession, and who are making it respected as it deserves to be. I cannot stop to praise the specimens of delicate needle-work, and the other evidences of tasteful labor by fair hands which are exhibited around us, for in praising them I should only repeat what every one who has seen them has already said, and thus I should be in danger of having it said of me, that I am only telling over to you what you yourselves have said, and not telling it half so well as you did.

It scarcely becomes me, a mere tyro in agriculture, to undertake to drop a word of advice to veteran farmers. But in passing over your county the fact is always prominently presented to my mind that as an agricultural region two things will hereafter require especial attention. A considerable portion of it is very rich land, capable of producing not only enormous crops of grass, but of corn likewise, and all root crops—but it is very level, and to bring such crops it must be underdrained. Many of you who have such lands may not be able

at present to do it, but your children must, and you will find it greatly to your advantage to invest your surplus means in this manner, and gradually relieve your farms from the constant danger of drought or drowning to which they are now subject. If you have never underdrained you know little of the capabilities of your soil. The world cannot show fatter lands than some in your own county, but your average production of wheat will now scarce exceed ten bushels to the acre, where the English farmer, with it properly underdrained, would make it produce forty. It is a great mistake with some men that it is as well and as cheap to raise twenty bushels from two acres as from one, and so you will find it as you take the proper steps to relieve the earth of the stagnant water that is now so apt to dwarf your crops. In their present condition crops upon our flat lands may aptly be compared to a considerable portion of our western people, who have an abundance of food and a little too much of drink.

Another portion of your county is a light sandy soil, easily made exceedingly productive, but almost barren unless frequently and freely manured. On one of the finest farms I know anywhere, though not without its need of manure, the barns have been constructed upon a little stream, that its frequent overflowing may wash away the litter of the yard, and save the necessity and trouble of carting it away. One corner of this farm is a light deep sand, and in passing it I have frequently been reminded of the ingenuity of man in appropriating the wisdom of the brute creation. The hog, you know, when you give it swill, always puts one foot in it to hold it down while he eats it. So this man, whilst he provides a stream to carry off the manures, keeps this part of his farm plentifully stocked down to sorrel which prevents the wind from blowing it away while he cultivates and harvests it. Providence, too, is always kind in assisting such wisdom, for though wheat and oats are frequently sown upon this field, I always notice that instead of wheat or oats growing, nature still sends up abundantly this same sorrel to hold the soil down.

It will scarcely answer, upon some of our Southern Michigan lands, to make streams the vehicles for carrying off our manures, for unless we carefully preserve and judiciously apply them, we may plow and sow, but when we come to reap, we still find our wheat turned to milkweeds, and our clover to sorrel.

We want no imported guano to make our light sandy soils productive —no phosphate, superphosphate or hyper superphosphate of lime at a heavy expense—the elements of vegetable wealth are always produced in considerable abundance upon them, and only need to be carefully preserved and judiciously applied. And if more is needed than can be thus obtained, few farms are without rich vegetable deposites of peat or muck, precisely what such lands require ; or, perhaps marl, which is equally valuable.

In conclusion let me say that the first business of the famer is to make his home pleasant to his family—to preserve or plant trees around it that shall not only add grace to its appearance, but shall soften the heat of summer and modify the rigors of winter—to plant fruit trees in variety, and interest his sons in the various modes of planting, grafting and rearing them, to supply his home with reading, and especially with agricultural reading; taking care that for this they shall have one or more good agricultural journals like the Cultivator or our own excellent Michigan Farmer. And to do this he does not require a large or expensive house; a log cabin may be as cheerful, and far more attractive in appearance outwardly, than the vast majority of expensive farm houses, if a little care is bestowed in keeping the yard about it neat, and clean, and shaded; with a few perpetual roses, that cost nothing but a little care, showering down their fragrant leaves through the season, and an Isabella or a Catawba grape vine running up the old logs and loading them with the delicious fruit.

A pleasant home is everything, for there the principal portion of our lives is to be spent, it is around the home of youth that the affections of after life principally cluster—and if we would have our children love their homes, and proud of the business they are expected to follow, we must take some care not only that that business shall interest their active minds, but that home shall be the most pleasant place in the world to them, and from which neither improper amusements nor bar room yarns or revels shall have power to attract them. We hear fathers talking to disobedient or runaway children about their *duty* to their parents, and their *duty* to love their home, to avoid dangerous places of resort, when they themselves have neglected the first and greatest duty, and instead of making home attractive to them so that they can love it, act all the while as though they meant to make it as repulsive as pos-

sible, and desired to drive their children away into the world to seek elsewhere that mental occupation and those enjoyments denied them under the parental roof.

What proper idea can that farmer have of filial duty, who, instead of endeavoring to make his home pleasant to his family and to give everything around him a cheerful appearance, devotes all his time and thought and energy to adding to his gains, and to make an ostentatious display of them, wearing all the while, but especially at home, a countenance as sour as a Dutch dinner—building, perhaps, to show his ability, a great overgrown house, with twice as many rooms in it as will ever be finished off—snubbing his daughters for silliness because they seek to make something around them look cheerful by planting a few flowers in the yard—utterly refusing to permit a shade tree near lest it might obstruct some one's view of his mansion, and finally contenting himself only when he is either hard at work making money, or hard at work spending it in just such a way as to detract from, rather than add to the comforts of his family. There are many such men, so deaf to all the demands of duty, and so quick to respond to all the promptings of avarice, and that pride which springs from it, that I may say of them without the imputation of levity, that they jump at the jingle of a sixpence when the voice of the Almighty cannot reach them.

I know that in Monroe county there are many pleasant homes, to which her sons, as they scatter abroad, look back with many a longing. Men have been nurtured in the cheerful influences of those homes who have done themselves and their country much honor in the halls of justice, in the State and National Legislatures, in the executive chair, by their energy and application, their urbanity and faithful discharge of duty. I see around me evidences that the farmers are not behind in their efforts to give character and position to the county where they have chosen their home. I see evidences among them of that same indomitable energy and perseverance that has always characterized her political representatives, and what other augury can I draw from it than that a settled determination exists to place the farmers of Monroe in the vanguard of the great agricultural army of the State? And if such determination exists, shall it be thwarted? I know it will not be. Well has Monroe won for herself the reputation she bears, of always accomplishing whatever she undertakes. Go on, then, for the prestige of success is with you.

Let me congratulate you as we separate, on the much needed addition of one more to the very limited number of our holidays. The Jews, from the fullness of their thankful hearts, brought of the first fruits of their harvest, and made of them an offering before the Lord. The simple Hindoo, moved by the same impulse, laid a tithe of his annual gatherings at the feet of his idol. From us, God requires no such offerings, no typical sacrifices; but happily we have substituted in its stead an offering to good will and good fellowship with our neighbors, which annually, at our agricultural holiday, we come together to bring. Wanting as we are in religious and national festivals, it is a good thing for us to set apart one day, in our season of harvest and abundance, when we can come together with our neighbors and compare labors and results—not with the same malignant and envious feeling that caused Cain to rise up in anger and slay his successful brother, but rather with that abundant good will to all which the season naturally inspires, and which leads us to rejoice in each other's success, and to be thankful that there is, year by year, a steady march of onward progress, though others than ourselves, for the time being, may lead the van.

OAKLAND COUNTY.

J. C. HOLMES, ESQ., *Sec'y Mich. State Agricultural Society:*

Below I send you the annual report of the Oakland County Agricultural Society.

Very respectfully,
Your ob't serv't,
J. R. BOWMAN,
Recording Secretary.

—

The annual meeting of the Oakland County Agricultural Society was held pursuant to public notice, at the Court House in the village of Pontiac, on Tuesday, the 2d day of January, A. D. 1855.

The President of the Society, Chas. Baldwin, Esq., took the chair, and called the meeting to order.

On motion,

Resolved, That the second article of the Constitution of this Society be so amended that the same shall read as follows:

"ART. 2. The officers of this Society shall be a President, one Vice-President for each representative district in this county, a Treasurer, a Recording Secretary, a Corresponding Secretary, and an Executive Committee of ten members, to be chosen for that purpose at the annual meeting of this Society, which shall hereafter be held on the last day of the annual fair, immediately after the award of premiums is made."

The above amendment to the Constitution was adopted by a vote of two-thirds of the members present.

The following persons were then elected officers of this Society for the ensuing year, viz.:

For President—James Bayley, of Troy.

For Vice Presidents—

Dist. No. 1. Harris Newton, of Avon.

" 2. Joseph A. Peck, of Pontiac.

" 3. E. V. Bachman, of White Lake.

" 4. A. C. Baldwin, of Commerce.

" 5. A. C. Walker, of Farmington.

For Treasurer—Samuel E. Beach, of Pontiac.

For Recording Secretary—Joseph R. Bowman, of Pontiac.

For Corresponding Secretary—Z. B. Knight, of Pontiac.

For members of Executive Committee—

Moses Wisner, Pontiac.

Nelson W. Clark, Clarkson.

Morgan L. Brooks, Novi.

William Whitfield, Waterford.

David Hammond, Oakland.

Oliver P. Davison, Highland.

Rowland E. Trowbridge, Bloomfield.

Alexander Wattles, Troy.

Joseph A. Peck, Pontiac.

Calvin W. Green, Farmington.

On motion of Joseph Coates,

Resolved, That the Executive Committee be requested to take into consideration the propriety of establishing a fair at Pontiac, in the spring, for the purchase and sale of farming stock; and if, in their opinion, it would be likely to promote the farming interests of Oakland county, that they be authorized to fix a time, make the same public, and take all necessary measures for the establishment of said fair.

Resolved, That the thanks of this Society be tendered to the President and Secretary, for the able and faithful discharge of their respective duties.

The Society then adjourned *sine die*.

CHARLES BALDWIN,
President.

J. R. Bowman, *Secretary.*

At a meeting of the Executive Committee of the Oakland County Agricultural Society, held pursuant to notice, at the Court House in the village of Pontiac, on Tuesday, the 6th day of February, A. D. 1855,

Present, James Bayley, President; J. R. Bowman, Recording Secretary; Moses Wisner, Nelson W. Clark, Morgan L. Brooks, Oliver P. Davison, Rowland E. Trowbridge, Joseph A. Peck and C. W. Green, Executive Committee.

Resolved, That a committee of three be appointed by the chair for the purpose of expending the $400 appropriated by the Board of Supervisors of the county of Oakland, by a resolution of said board, adopted on the third day of January, A. D. 1855, and that the Treasurer of this Society be one of said committee.

The chair then appointed Messrs. Moses Wisner, Nelson W. Clark and Samuel E. Beach, said committee.

Resolved, That Joseph R. Bowman be added to said committee.

Resolved, That a committee of three be appointed by the chair to present the interests of this Society before the Board of Supervisors at their next session.

Messrs. Trowbridge, Green and Wisner were appointed said committee.

Resolved, That a discretionary premium of $5 be awarded to Calvin A. Green, on three pens of Spanish and French Merino Sheep, exhibited at the last annual fair.

Resolved, That a discretionary premium of $4 be awarded to Joseph A. Peck, on Leicester Sheep, exhibited at the last annual fair.

Resolved, That this Society hold its Seventh Annual Fair at the fair ground in the village of Pontiac, on Wednesday and Thursday, the 17th and 18th days of October next ensuing.

Resolved, That the sum of twelve hundred dollars be awarded in premiums the present year.

Resolved, That a premium of $10 be awarded to the best three yoke of oxen exhibited at the next annual fair, from any one town.

Resolved, That a committee of three be appointed to revise the premium list.

Messrs. Green, Brooks and Davison were appointed said committee.

Resolved, That Messrs. Wisner, Clark, Beach and Bowman, be a committee to make the necessary arrangements for the next annual fair.

Resolved, That the Secretary provide some suitable person to deliver an address before this Society at the next annual fair.

Resolved, That Messrs. Morgan L. Brooks, Rowland E. Trowbridge, and Joseph A. Peck, be a committee to examine farms and gardens; to make their report to the Executive Committee at their annual meeting, and that their expenses be paid by the Society.

Resolved, That no animal having heretofore taken the first premium at a county fair shall hereafter draw a premium, except on a higher class, but Diplomas may be awarded to such animals, in the discretion of the examining committee.

Resolved, That the matter presented by Joseph Coates, at the annual meeting, in relation to holding a fair in the spring for the sale of farming stock, be laid upon the table.

The committee to revise the premium list made a report, which was accepted, and after some amendment was adopted.

Resolved, That we now proceed to elect Judges for the several classes. (For premium list and Judges, see printed list.)

Resolved, That one thousand copies of the premium list be printed for the use of the Society.

Resolved, That the Secretary superintend the printing.

Resolved, That the sum of one hundred and fifty dollars be allowed to J. R. Bowman, for his services as Secretary, (including postage,) for two years.

Resolved, That we now adjourn.

JAMES BAYLEY,
President.

JOSEPH R. BOWMAN, *Secretary.*

LIST OF PREMIUMS

To be awarded at the Seventh Annual Fair of the Oakland County Agricultural Society, on Wednesday and Thursday, October 17th and 18th, A. D. 1855:

CLASS I.—CATTLE—SHORT HORNS.

Judges—Joel T. Griffin, Clarkston; Wm. Satterlee, Birmingham; Andrew C. Walker, Farmington.

Best bull 3 years old or over,	$6 00
2d " 3 "	4 00
3d " 3 "	2 00
Best bull 2 years old,	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best bull 1 year old,	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 3 years old or over,	5 00
2d " 3 "	4 00
3d " 3 "	2 00
Best 2 year old heifer,	4 00
2d best 2 "	2 00
3d best 2 "	1 00
Best 1 "	3 00
2d best 1 "	2 00
3d best 1 "	1 00
Best heifer calf,	2 00
2d best "	1 00

CLASS II.—CATTLE—DEVONS.

Judges—Same as class 1.

Best bull 3 years old and over,	$6 00
2d " 3 "	4 00
3d " 3 "	2 00
Best bull 2 years old,	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best bull 1 year old,	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 3 years old or over,	5 00

2d best cow 3 years old or over,	$4 00
3d " 3 "	2 00
Best 2 year old heifer,	4 00
2d best 2 "	2 00
3d best 2 "	1 00
Best 1 "	3 00
2d best 1 "	2 00
3d best 1 "	1 00
Best heifer calf,	2 00
2d best "	1 00

CLASS III.—CROSS OF BLOOD CATTLE.

Judges—Riley C. Cone, Troy; H. V. D. Boget, Novi; George W. Collins, Farmington.

Best bull 3 years old or over,	$6 00
2d " 3 "	4 00
3d " 3 "	2 00
Best bull 2 years old,	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best bull 1 year old,	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 3 years old or over,	5 00
2d " 3 "	4 00
3d " 3 "	2 00
Best 2 year old heifer,	4 00
2d best 2 "	2 00
3d best 2 "	1 00
Best 1 year old heifer,	3 00
2d best 1 "	2 00
3d best 1 "	1 00
Best heifer calf,	2 00
2d best "	1 00

CLASS IV.—CATTLE—GRADES AND NATIVES.

Judges—Henry W. Horton, Groveland; Aaron Chapman, Northville; Walter Whitfield, Pontiac.

Best bull 3 years old or over,	$5 00
2d " 3 "	4 00
3d " 3 "	3 00
Best bull 2 years old,	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best bull 1 year old,	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 3 years old or over,	5 00
2d " 3 "	4 00
3d " 3 "	3 00
Best 2 year old heifer,	4 00
2d best 2 "	3 00
3d best 2 "	2 00
Best 1 year old heifer,	3 00
2d best 1 "	2 00
3d best 1 "	1 00
Best heifer calf,	2 00
2d best "	1 00

CLASS V.—WORKING OXEN, STEERS AND FAT CATTLE.

Judges—Leland Green, Farmington; John M. Norton, Troy; Wm. A. Denison, Troy.

Best yoke of working oxen, 5 years old or over,	$6 00
2d best " " 5 "	5 00
3d best " " 5 "	4 00
Best yoke of 4 years old steers,	4 00
2d best " 4 "	3 00
3d best " 4 "	2 00
Best yoke of 3 years old steers,	3 00

2d best yoke 3 years old steers,	$2 00
3d best " 3 "	1 00
Best yoke of 2 "	3 00
2d best " 2 "	2 00
Best yoke of 1 year old steers,	2 00
2d best " 1 "	1 00
Best pair of fat cattle,	5 00
2d best " "	3 00
Best fat cow,	3 00
2d best "	2 00
Best 3 yoke of oxen from any one town,	10 00

CLASS VI.—FOREIGN STOCK.

Best Durham bull,	$4 00
Best Durham cow,	4 00
Best Devon bull,	4 00
Best Devon cow,	4 00
Best stallion,	4 00
Best brood mare,	4 00
Best buck, fine wool,	3 00
Best pen of 5 ewes,	3 00

Any stock owned in the county may have the privilege of competing with foreign stock.

Judges on Cattle in this class same as class 4. On Horses the same as class 7. On Sheep the same as class 10.

CLASS VII.—BLOOD HORSES.

Judges—Thomas F. Gerls, Troy; Oscar F. North, Pontiac; —— Putnam, Highland.

Best stallion 5 years old and over,	$7 00
2d " 5 "	6 00
3d " 5 "	5 00
Best stallion 4 years old,	5 00
2d " 4 "	4 00
3d " 4 "	3 00
Best stallion or gelding 2 years old,	4 00
2d best " 2 "	3 00

3d best stallion or gelding 2 years old,	$2 00
Best stallion 1 year old,	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best horse colt,	2 00
2d best "	1 00
Best brood mare 4 years old and upwards, with foal at foot,	6 00
2d " 4 " "	5 00
3d " 4 " "	4 00
Best mare 3 years old,	4 00
2d " 3 "	3 00
3d " 3 "	2 00
Best mare 2 years old,	3 00
2d " 2 "	2 00
3d " 2 "	1 00
Best mare 1 year old,	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best mare colt under 1 year,	2 00
2d best " 1 year,	1 00

Judges on this class are the Judges on Foreign Horses.

The Judges on Blood Horses should take into consideration for comparison, the following distinct points:

1. The pedigree, which should be so authenticated by certificate or affidavit as to be thought reliable.

2. The size, symmetry and general conformation of the horse, so as to fully indicate his blood in his appearance.

3. The light and graceful action, which is alone the character of the "Blood Horse," not only for speed but for bottom.

Any Horse entered as a Blood Horse, and differing essentially in any of these considerations, when viewed in connection, should be ruled out of said class.

CLASS VIII.—HORSES FOR ALL WORK.

Judges—George H. Satterlee, Birmingham; Daniel C. Kellam, Pontiac; Stephen Lapham, Farmington.

Premiums same as class 7.

CLASS IX.—WORK HORSES.

Judges—Austin N. Kimmis, New Hudson; Myron G. Cobb, Clarkston; Seeley Harger, West Bloomfield.

Best farm team, mares or geldings, 4 years old and over,	$6 00
2d best " " 4 "	4 00
3d best " " 4 "	3 00
Best pair carriage horses 4 years old and over,	6 00
2d best " 4 "	4 00
3d best " 4 "	3 00
Best pair matched mares 4 years old and over,	6 00
2d best " 4 "	4 00
3d best " 4 "	3 00
Best pair matched mares or geldings 3 years old,	4 00
2d best " " 3 "	3 00
Best single horse (gelding) 4 years old and over,	3 00
2d best " " 4 "	2 00
3d best " " 4 "	1 00
Best single mare,	3 00
2d best "	2 00
3d best "	1 00

CLASS X.—SHEEP—SPANISH MERINO.

Judges—Harrison Voorhies, White Lake; E. G. Deming, Oxford; Washington Stanley, Troy.

Best Spanish merino buck,	$4 00
2d best "	3 00
3d best "	2 00
Best 5 Spanish merino ewes,	5 00
2d best 5 "	3 00
3d best 5 "	2 00

CLASS XI.—SHEEP—FRENCH MERINO.

Judges—John Thomas, Oxford; William Davis, Troy; William Gage, Holley Mills.

Best French merino buck,	$4 00
2d best "	3 00
3d best "	2 00

Best 5 French merino ewes,	$4 00
2d best 5 "	3 00
3d best 5 "	2 00

CLASS XII.—SHEEP—CROSS OF BLOOD.

Judges—Luther Green, Farmington; Eber L. Taylor, Waterford; Samuel Rogers, Northville.

Best buck,	$4 00
2d "	3 00
3d "	2 00
Best 5 ewes,	4 00
2d best 5 ewes,	3 00
3d best 5 ewes,	2 00

CLASS XIII.—FAT SHEEP.

Judges—Samuel Hubbell, Pontiac; Henry Comstock, Pontiac; Geo. Randall, Birmingham.

Best lot of fat sheep, not less than three,	$3 00
2d best lot " "	2 00

CLASS XIV.—SWINE.

Judges—George Miller, Clarkston; John Chamberlin, Bloomfield; Harris Newton, Rochester.

Best boar,	$4 00
2d "	3 00
Best breeding sow,	4 00
2d best "	3 00
Best litter of pigs not less than five,	4 00
2d best " "	3 00

CLASS XV.—POULTRY.

Judges—Joseph D. Yerkes, Novi; Wm. P. Draper, Pontiac; Eli Bristol, Troy.

Best and greatest variety owned by exhibitor,	$2 00
Best lot Cochin Chinas, not less than 3, (1 cock and 2 hens,)	1 00
Best lot Shanghais, " " "	1 00
Best lot Brahma Pootras, " " "	1 00

Best lot Chittagongs, not less than 3, (1 cock and 2 hens),	$1 00
Best lot Bantams, " " "	1 00
Best lot turkeys, " " "	1 00
Best lot ducks, not less than 3,	1 00
Best lot geese, white, "	1 00
Best lot geese, grey, "	1 00

CLASS XVI.—PLOWING MATCH.

Judges—John Fisher, Clarkston; Moses V. Murlin, Pontiac; Aaron Webster, Avon.

With Horses.

First premium, single team, 8 inches deep, any plow,	$5 00
2d " " " "	3 00
3d " " " "	2 00

With Oxen.

First premium, single team,	$5 00
2d " "	3 00
3d " "	2 00
First premium, double team or any amount of team,	5 00
2d " " " "	3 00
3d " " " "	2 00

Boys under 18 *years of age, with Horses or Oxen.*

First premium,	$3 00
2d "	2 00

Double teams to plow ten inches deep, and single teams eight inches; time allowed to plow one-fourth of an acre, one hour and a half.

The plowing match will take place at 11 o'clock A. M., on the second day.

CLASS XVII.—FARM IMPLEMENTS.

Judges—G. Poeny, Novi; Zuriel Curtis, Rochester; James H. Murray, Farmington.

Best horse power,	$7 00
Best mowing machine,	5 00
Best grain reaper,	5 00
" thresher and separator,	5 00

Best grain drill,	$4 00
Best farm wagon,	5 00
Best two horse carriage for family use,	5 00
Best one " "	5 00
Best horse cart,	3 00
Best ox cart,	2 00
Best lumber sleigh,	3 00
Best one horse sleigh,	3 00
Best plow for deep plowing,	3 00
" general purposes,	3 00
Best jointer plow,	1 00
Best subsoil plow,	1 00
Best ditching plow,	4 00
Best bog cutter,	4 00
Best clover mill,	3 00
Best fanning mill,	3 00
Best straw cutter,	3 00
Best vegetable cutter,	3 00
Best wheel cultivator,	3 00
Best "A" "	3 00
Best corn "	2 00
Best corn planter,	2 00
Best harrow,	2 00
Best horse rake,	2 00
Best roller for general use,	2 00
Best constructed gate,	2 00
Best 6 hay forks,	2 00
Best 6 grass scythes,	2 00
Best 6 cradle scythes,	2 00
Best grain cradle,	1 00
Best 6 hand rakes,	1 00
Best dozen axes,	2 00
Best dozen corn brooms,	1 00
Best churn,	2 00
Best washing machine,	2 00
Best wash tub,	1 00
Best pork barrel,	1 00

Best ox yoke,	$1 00
Best set whiffle trees and neck yoke,	1 00
Best shovel and spade,	1 00
Best set bench planes,	1 00
Best set augers,	1 00
Best set framing chisels,	1 00
Best adze,	1 00
Best cooking stove,	4 00
Best parlor stove,	2 00
Best double carriage harness,	4 00
Best double wagon "	4 00
Best single carriage "	2 00
Best saddle,	2 00
Best bridle,	1 00
Best sample of copper and tin ware,	2 00
Best horse shoe tile and flat,	2 00
Best pipe tile,	2 00

CLASS XVIII.—CABINET WORK.

Judges—David I. Prall, Pontiac; William Burbank, Rochester; Horace Robinson, Clarkston.

Best specimen of cabinet work,	$4 00
Best 6 chairs,	2 00
Best rocking chair,	1 00

CLASS XIX.—DOMESTIC MANUFACTURES.

Class 1.

Judges—W. M. McConnel, Pontiac; Moses G. Spear, Pontiac; Charles Davis, Pontiac.

Best pair thick pegged boots,	$1 00
" " brogans,	1 00
" calf pegged boots,	1 00
" calf sewed boots,	1 00
" ladies' gaiter boots,	1 00
" " slippers,	1 00
Best side of sole leather,	1 00
" upper leather,	1 00

Best calf skin,	$1 00
Best made coat,	2 00
2d best "	1 00
Best made vest,	1 00
2d best "	50
Best made pants,	1 00
2d best "	50

Class 2.

Judges—Alba A. Lull, Pontiac; Mrs. Joseph D. Yerkes, Northville; Mrs. Van Valkenburgh, Pontiac; Mrs. A. Whitehead, Waterford; Mrs. Stephen Brown, Farmington; Mrs. E. P. Harris, Rochester.

Best pair woolen blankets,	$3 00
2d best "	2 00
Best 10 yards flannel,	3 00
2d best 10 "	2 00
Best 10 yards flannel, plaid,	3 00
2d best 10 " "	2 00
Best 5 yards fulled cloth,	3 00
2d best 5 "	2 00
Best 10 yards woolen carpet,	4 00
2d best 10 "	3 00
Best 10 yards rag carpet,	3 00
2d best 10 "	2 00
Best 10 yards linen or tow cloth,	2 00
Best hearth rug,	2 00
Best pair knit silk stockings,	1 00
Best pair knit linen stockings,	1 00
Best pair knit woolen stockings,	1 00
Best pair knit cotton stockings,	1 00
Best pair knit mens' socks,	1 00
Best sample woolen yarn, not less than 1 pound,	1 00
Best woolen shawl,	2 00
2d best "	1 00
Best coverlet,	3 00
2d "	2 00

CLASS XX.—BUTTER, CHEESE, MAPLE SUGAR, BREAD, HONEY, &C.

Judges—Judge Van Valkenburgh, Pontiac; Mrs. N. W. Clark, Clarkston; Mrs. Morgan L. Brooks, Novi; Mrs. Bradley, Waterford; Mrs. Asa Reynolds, Rose.

Best 5 lbs. butter in rolls,	$3 00
2d " " "	2 00
Best lot 50 lbs. butter,	5 00
2d " 50 "	3 00

Cheese.

Best old cheese,	$3 00
2d " "	2 00
Best new cheese,	3 00
2d " "	2 00

Maple Sugar, Honey, &c.

Best 10 lbs. maple sugar,	$2 00
2d " " "	1 00
Best 10 lbs. honey,	2 00
2d " "	1 00
Best bee hive,	1 00

Bread.

Best two loaves baker's bread,	$1 00
" " milk or salt rising bread,	1 00
" " yeast "	1 00
" " soda "	1 00
Best sample of brown or Graham bread,	1 00
" corn "	1 00

CLASS XXI.—PAINTING, DRAWING, DAGUERREOTYPES, &C.

Judges—A. C. Baldwin, Pontiac; Mrs. Z. M. Mowery, Milford; Mrs. M. Wisner, Mrs. Peter Hogan, Mrs. Josiah A. Peck, Pontiac.

Best painting in oil by Michigan artist,	$3 00
2d " " "	2 00
Best specimen of animal painting in oil,	3 00
2d " " "	2 00
Best specimen of cattle drawing,	3 00

2d best specimen of cattle drawing,	$2 00
Best specimen of painting in water colors,	3 00
2d " " "	2 00
Best daguerreotype,	2 00
2d " "	1 00
Best design for farm house and outbuildings, with plans, specifications and estimates,	5 00

CLASS XXII.—NEEDLE, SHELL AND WAX WORK, &C.

Judges—Robert B. Morris, Pontiac; Mrs. Oliver P. Davison, Highland; Mrs. Luther Green, Farmington; Mrs. J. R. Bowman, Mrs. G. W. Wisner, Pontiac.

Best ornamental needle work,	$2 00
2d " "	1 00
Best ottoman cover,	2 00
2d " "	1 00
Best table cover,	2 00
2d " "	1 00
Best fancy chair work with needle,	2 00
2d " " "	1 00
Best specimen of worsted work,	2 00
2d " "	1 00
Best worked collar,	2 00
2d " "	1 00
Best lace cap,	2 00
2d " "	1 00
Best porfolio worked,	2 00
2d " "	1 00
Best silk bonnet,	2 00
2d " "	1 00
Best straw bonnet,	2 00
2d " "	1 00
Best two lamp mats,	1 00
2d " "	50
Best ornamental shell work,	2 00
2d " "	1 00

Best group of flowers,	$1 00
2d " "	50
Best specimen of wax flowers,	1 00
2d " "	50
Best specimen of artificial flowers other than wax,	1 00
2d " " "	50
Best worked quilt,	3 00
2d " "	2 00
Best white worked quilt,	3 00
2d " "	2 00

CLASS XXIII.—FLOWERS, &C.

Judges—Jas. T. Allan, Mrs. O. C. Morris, Mrs. Judge Copeland, Mrs. A. B. Cudworth, Mrs. W. M. McConnel, Pontiac.

Dahlias.

Best and greatest variety,	$2 00
2d " "	1 00
Best single dahlia,	1 00
Best 12 dissimilar blooms,	1 00
2d " "	50

Roses.

Best and greatest variety,	2 00
2d " "	1 00
Best 12 dissimilar blooms,	1 00
Best and greatest variety of verbenas,	1 00
2d " " "	50
Best and greatest variety of indigenous flowers,	1 00
2d " " "	50
Best 6 varieties of phlox,	1 00
2d " "	50
Best collection of green house plants owned by one person,	2 00
2d " " " "	1 00
Best hand bouquet, flat,	1 00
2d " "	50
Best hand bouquet, round,	1 00
2d " "	50

Best and most beautiful arranged basket of flowers,	$1 00
2d " " " "	50

CLASS XXIV.—FRUIT.

Judges—Linus Cone, Troy; Mr. Bradley, Waterford; John C. Morse, Highland.

Best 6 varieties good winter apples, 3 of each variety, named and labeled, grown by exhibitor,	$2 00
2d best 6 varieties good winter apples, 3 of each variety, named and labeled, grown by exhibitor,	1 00
Best 6 varieties of autumn apples, 3 of each variety, named and labeled, grown by exhibitor,	2 00
2d best 6 varieties of autumn apples, 3 of each variety, named and labeled, grown by exhibitor,	1 00
Best 12 specimens winter apples, single variety,	1 00
Best 12 specimens of autumn apples, single variety,	1 00

Pears.

Best and greatest variety of good pears, named and labeled, grown by exhibitor,	2 00
2d best and greatest variety of good pears, named and labeled, grown by exhibitor,	1 00
Best collection of autumn pears, named and labeled,	1 00
Best 6 specimens of autumn pears,	1 00

Peaches.

Best 10 varieties, named and labeled,	2 00
Best 10 specimens,	2 00
Best seedling varieties, 6 specimens, with description, history, &c.,	2 00
Best peck of peaches,	2 00

Plums.

Best collection of plums, 6 specimens each,	2 00
Best 4 varieties of plums, 6 specimens each,	3 00
Best seedling plums, with description, history, &c.,	1 00

Nectarines and Apricots.

Best and greatest number of good varieties of each fruit, 6 specimens of each variety,	2 00

Best six specimens of any good variety, ... $1 00

Quinces.

Best 12 quinces of any good variety, ... 1 00
Best peck quinces of any good variety, ... 1 00

Grapes.

Best and most extensive collection of good native grapes, grown in the open air, ... 2 00
Best dish of native grapes grown in the open air, ... 1 00
Best and most extensive collection of foreign grapes, grown in the open air, ... 2 00
Best dish of foreign grapes, grown in the open air, ... 1 00
Best and most extensive collection of foreign grapes grown under glass, ... 2 00
Best seedling grape, with a history of its origin, &c., ... 1 00

Melons.

Best 2 specimens any variety of watermelons, ... 1 00
" 2 " " muskmelons, ... 1 00
" 2 " " nutmeg melons, ... 1 00

Citron.

Best 2 specimens, ... 1 00

CLASS XXV.—VEGETABLES.

Judges—Doct. Isaac Paddock, Pontiac; Asa B. Hadsell, Bloomfield; F. H. Kellicut, Brandon.

Best three flat turnips, ... $0 50
" blood beets, ... 50
" parsnips, ... 50
" carrots, ... 50
" onions, ... 50
" vegetable oyster, (salsify,) 50
" heads of cabbage, ... 50
" " cauliflower, ... 50
" stalks of celery, ... 50
" vegetable eggs, ... 50
" tomatoes, ... 50

Best three squashes,	$0 50
" pumpkins,	50
Best peck lima beans,	50
" windsor beans,	50
" peas,	50
" sweet potatoes,	50
Best half bushel "	50
Best and greatest variety of culinary vegetables raised by one exhibitor,	2 00
Best and greatest variety of roots for cattle,	1 00

CLASS XXVI.—GRAIN, FLOUR AND SEEDS.

Judges—Joseph J. Todd, Bloomfield; Sanford L. Murray, Highland; John M. Chamberlin, Addison.

Best sample winter wheat not less than 2 bushels,	$3 00
" barley " "	2 00
" yellow corn " "	2 00
" white corn " "	2 00
" dent corn " "	2 00
" black oats " "	1 00
" white oats " "	1 00
" 12 ears seed corn, any variety,	50
Best bushel of clover seed, (large,)	4 00
" " (small,)	4 00
" timothy seed,	1 00
" flax seed,	1 00
Best sample of beans not less than 2 bushels,	1 00
" peas " "	1 00
Best barrel of flour made from the least quantity of wheat,	2 00
" " " any quantity of wheat,	2 00

All grain exhibited to be accompanied by satisfactory evidence to the judges that it is an average sample of the variety raised by the exhibitor.

CLASS XXVII.—FIELD CROPS.

Awards on field crops will be made by the executive committee at their annual meeting.

Best crop of wheat not less than 2 acres, sample to be exhibited, ... $8 00
2d best crop of wheat not less than 2 acres, sample to be exhibited, ... 4 00
Best crop of Indian corn, not less than 2 acres, sample to be exhibited, ... 8 00
2d best crop of Indian corn, not less than 2 acres, sample to be exhibited, ... 4 00
Best crop of barley, not less than 1 acre, sample to be exhibited, ... 4 00
2d best crop of barley, not less than 1 acre, sample to be exhibited, ... 2 00
Best crop of oats, not less than 2 acres, sample to be exhibited, ... 4 00
2d best crop of oats, not less than 1 acre, sample to be exhibited, ... 2 00
Best 1 acre of clover seed, sample to be exhibited, ... 4 00
" timothy seed, " " 4 00
Best half acre of potatoes, " " 4 00
" broom corn, " " 4 00
Best quarter acre carrots, ... 3 00
" ruta bagas, ... 3 00

CLASS XXVIII.—FARMS AND GARDENS.

Committee to examine farms and gardens and report to the executive committee at their annual meeting.

Judges—Morgan L. Brooks, Novi; Rowland E. Trowbridge, Bloomfield; Joseph A. Peck, Pontiac.

For the best cultivated farm, reference being had to cultivation, stock, improvement, expenses, products, &c., ... $25 00
2d best cultivated farm, reference being had to cultivation, stock, improvement, expenses, products, &c., ... 15 00
For the best cultivated garden, not less than one quarter of an acre, ... 15 00
2d best cultivated garden, not less than one quarter of an acre, .. 10 00

CLASS XXIX.—MISCELLANEOUS ARTICLES.

Judges—I. I. Voorhies, Pontiac; Harry C. Andrews, Milford; John Comstock, Commerce.

RULES AND REGULATIONS.

No. 1. The Executive Committee will meet at the Secretary's office, on the fair ground, at 8 o'clock A. M., on Wednesday, the first day of the fair.

No. 2. Members of the Society, and all who become such at the time of the fair, will be furnished with tickets which will admit the person, his wife, and children under twenty-one years of age, at all times to the exhibition during the continuance of the fair.

No. 3. Single tickets 15 cents, admitting one person, will be for sale at the business office on the show ground.

No. 4. The several committees of judges must report themselves to the Executive Committee at the Secretary's office at 10 o'clock A. M., on Wednesday.

No. 5. Articles entered for competition must be the property of a member of the Society, or a member of his or her family under the age of twenty-one years, and be entered by 2 o'clock P. M., on Wednesday, on the books of the Society.

No. 6. Persons employed for the purpose and wearing appropriate badges, will be in attendance to receive the articles intended for exhibition in their several departments, and a sufficient police will be on the ground to take care of all property deposited for exhibition, and the Society will be responsible for its safe keeping.

No. 7. Exhibitors must be careful to place their numbers upon or near their articles, or animals, so that the judges will have no difficulty in finding them.

No. 8. Exhibitors must have the articles and animals on the ground ready for the examination of the judges at or before 2 o'clock P. M., on Wednesday.

No. 9. No article entered for competition must be removed from the ground until 4 o'clock P. M. of the second day, without leave of the Executive Committee.

No. 10. All competitors for premiums on farms and gardens must notify the Recording Secretary, at Pontiac, by the fifteenth day of July next, of their intention to compete for premiums.

No. 11. Premiums on field crops, farms and gardens will be paid at the annual meeting, and the exhibitor must give a written statement of the manner of raising and preparing the ground, and a general statement of the process of raising the field crops.

No. 12. Where field crops are raised, the land must be measured and verified by affidavit of the owner and one or more persons as to the harvesting, cleaning, and measuring of the entire crop on the piece entered for premiums. It must be measured in a true half-bushel and a sample produced; and the corn must be shelled between the 15th of December and the 1st of January.

No. 13. No animals having heretofore taken the first premium at a county fair shall hereafter draw a premium, except in a higher class, but Diplomas may be awarded to such animals in the discretion of the examining committee.

No. 14. Manufactured articles to compete for premiums must be manufactured in the county; but no premiums will be allowed or paid on articles that have received a premium at any county fair.

No. 15. All animals and fowls having been owned and kept in the county four months previous to holding the fair shall have the privilege of competing for premiums. And in case any member of the Society shall present for premiums any animal not owned by exhibitor, or any manufactured article which has not been made in the county and not owned by the exhibitor, he shall not be entitled to a premium, although awarded to him, and shall be excluded from membership in this Society.

No. 16. When there is but one exhibitor, and the animal or article is not worthy, no premium will be awarded, and in no case will premiums be awarded for an inferior article or animal. If any member of a committee shall compete for a premium on any article to be judged of by his committee, he shall notify the executive committee of that fact on the day of the fair, and his notification of that fact shall disqualify him from acting on said committee, and his place shall be supplied by the executive committee.

No. 17. The annual address will be delivered on the fair ground at

2 P. M. on Thursday, immediately after which the report of the judges will be read.

By order of the Executive Committee.

JAMES BAYLEY,
President.

JOSEPH R. BOWMAN, *Secretary.*

At a meeting of the Executive Committee of the Oakland County Agricultural Society, held at the office of the Secretary on the fair ground, on the 18th day of October, A. D. 1856,

Present, James Bayley, President; Joseph R. Bowman, Recording Secretary; Nelson W. Clark, Morgan L. Brooks, William Whitfield, Oliver P. Davison, Rowland Trowbridge, Chauncey W. Green, Joseph A. Peck, Executive Committee.

The Executive Committee then proceeded to fill up the vacancies in the various committees, as follows, viz.:

Class 3, Cross of Blood Cattle—Joel Loomis in the place of George W. Collins.

Class 4, Cattle, Grade and Native—Daniel Whitfield in place of Walter Whitfield.

Class 5, Working Oxen, &c.—Silas Sprague and William Hunter in place of John M. Norton and William A. Dennison.

Class 7, Blood Horses—John R. Martin in place of Oscar F. North.

Class 9, Work Horses—John H. Smith in place of Austin N. Kimmis.

Class 10, Spanish Merino—Seth Goodwin in place of Washington Stanley.

Class 12, Sheep, Cross of Blood—Abel H. Peck, Luman Brownson, John Windiate.

Class 13, Fat Sheep—Edwin Phelps and E. H. Cressey in place of Samuel Hubbell and George Randall.

Class 16, Plowing Match—Samuel Fisher and Wilder Winslow, Jr., in place of John Fisher and Aaron Webster.

Class 18, Cabinet Work—Chester W. Tuthill and Henry Comstock in place of William Burbank and Horace Robinson.

Class 19, Domestic Manufactures, Class 1—George W. Rogers in place of Charles M. Davis.

Class 20, Butter, Cheese, &c.—Mrs. H. H. Philbrick in place of Mrs. Asa Reynolds.

Class 21, Painting, Drawing, &c.—Mrs. A. A. Lull in place of Mrs. Joseph A. Peck.

Class 22, Needle, Shell, and Wax Work, &c.—Alfred Treadway in place of A. C. Baldwin.

Class 23, Flowers, &c.—Robert W. Davis in place of James T. Allan.

Class 24, Fruit—Randolph Manning and —— Martin in place of John C. Morse and Mr. Bradley.

Class 25, Vegetables—Benjamin Page in place of F. H. Kellicut.

Class 26, Grain, Flour, and Seeds,—H. N. Howard, Wm. Farmer, Edwin Phelps.

Resolved, That the following committees be appointed, viz.:

Messrs. Clark and Whitfield to take the supervision of the cattle division on the fair ground.

Messrs. Brooks and Trowbridge, the horse division on the fair ground.

Wm. Davison, Floral Hall.

Mr. J. A. Peck, domestic and fruit divisions.

Mr. C. A. Green, sheep, swine, and poultry divisions.

Messrs. J. A. Peck and N. W. Clark, to measure the ground and prepare for the plowing match.

SEVENTH ANNUAL FAIR.

The seventh annual fair of the Oakland County Agricultural Society, was held at the fair ground, in the village of Pontiac, on the 17th and 18th days of October, 1855.

The amount received for membership tickets was $357 00.

The amount received for admission tickets was $391 09.

The number of exhibitors was 321.

The number of entries made was much larger than at any previous fair, being 1,014, as follows:

Number of horses entered,	157
Cattle,	138
Sheep,	52
Swine,	23
Fowls,	32
Implements, &c.,	41
Domestic manufactures,	80
Carriages and wagons,	5
Stoves,	5
Musical instruments,	4
Bee houses and hives,	5
Teams for plowing,	11
Honey and maple sugar,	5
Wine,	2
Leather,	2
Field crops,	1
Grain and seeds,	38
Vegetables,	153
Fruit,	87
Flowers,	15
Butter,	34
Bread,	16
Cheese,	8
Drawings, paintings, &c.,	18
Needle, shell and wax work,	56
Leather work,	6
Cabinet work,	1
Miscellaneous,	19

The annual address was delivered by Professor A. S. Welch on the afternoon of the second day.

After the delivery of which, it was

Resolved, That the thanks of the Society be tendered to Professor A. S. Welch, for the address delivered, with the request that he would furnish a copy thereof for publication, for the use of the society.

The reports of the Judges were then read, and the following premiums awarded:

LIST OF PREMIUMS

Awarded at the Oakland County Fair, held at Pontiac, on Wednesday and Thursday, October 17th and 18th, A. D. 1855:

CLASSES I. AND II.—CATTLE—SHORT HORNS AND DEVONS.

Best bull 3 years old and over, Andrew C. Walker,	$6 00
2d " 3 " S. Godfrey,	4 00
3d " 3 " A. B. Bloomer,	2 00
Best bull 1 year old, M. L. Brooks,	3 00
Best bull calf, J. B. Ward,	2 00
2d " A. S. Brooks,	1 00
3d " M. L. Brooks,	1 00
Best cow 3 years old and over, M. L. Brooks,	5 00
2d " 3 " "	4 00
3d " 3 " I. B. Ward,	2 00
Best heifer 2 years old, M. L. Brooks,	4 00
2d " 2 " A. S. Brooks,	2 00
3d " 2 " M. L. Brooks,	1 00
Best heifer 1 year old, E. J. Dusenberry,	3 00
2d " 1 " A. S. Brooks,	2 00
3d " 1 " A. B. Bloomer,	1 00

No Devon cattle on the ground.

CLASS III.—CROSS OF BLOOD CATTLE.

Best bull 2 years old, Wm. Whitfield,	$4 00
2d " 2 " John R. Tibbitts,	3 00
3d " 2 " Daniel Kimball,	2 00
Best bull 1 year old, J. Thorpe,	3 00
" calf, J. Thorpe,	2 00
Best cow over 5 years old, John R. Tibbitts,	5 00
2d best " 5 " J. Thorpe,	4 00
3d best " 5 " C. W. Green,	2 00
Best cow over 4 years old, C. W. Green,	5 00
2d best " 4 " Wm. Whitfield,	4 00
3d best " 4 " C. W. Green,	2 00
Best heifer 2 years old, Henry Birge,	4 00
2d " 2 " John R. Tibbitts,	2 00

Best heifer 1 year old, C. W. Green, ... $3 00
2d " 1 " Henry Birge, ... 2 00
Best heifer calf, Wm. Whitfield, ... 2 00
2d best " C. W. Green, ... 1 00

CLASS IV.—CATTLE—NATIVE AND GRADE.

Best 3 years old bull, Eber L. Taylor, ... $5 00
2d best 3 " John Waldron, ... 4 00
Best 2 years old bull, C. A. Green, ... 4 00
2d best 2 " " 3 00
Best 1 year old bull, George German, ... 3 00
2d best 1 " William Fisher, Jr., ... 2 00
3d best 1 " H. Newton, ... 1 00
Best bull calf, Jesse Lee Stout, ... 2 00
2d " H. Scott, ... 1 00
Best 5 years old cow, A. S. Brooks, ... 5 00
2d best 5 " C. W. Green, ... 4 00
3d best 5 " E. J. Dusenberry, ... 3 00
Best 3 years old cow, J. H. Button, ... 5 00
2d best 3 " H. V. D. Bogert, ... 4 00
3d best 3 " " 3 00
Best 2 years old heifer, Henry Birge, ... 4 00
2d best 2 " George German, ... 3 00
3d best 2 " Alfred Judson, ... 2 00
Best 1 year old heifer, Jesse Lee Stout, ... 3 00
2d best 1 " Henry Birge, ... 2 00
3d best 1 " Alfred Judson, ... 1 00
Best heifer calf, A. S. Brooks, ... 2 00
2d best " C. Pearsall, ... 1 00

CLASS V.—WORKING OXEN, STEERS AND FAT CATTLE.

Best yoke working oxen, C. W. Green, ... $6 00
2d best " Benj. P. Wixom, ... 5 00
3d best " Albert Terry, ... 4 00
Best yoke 4 years old steers, James Bailey, ... 4 00
2d " 4 " C. Pearsall, ... 3 00
3d " 4 " H. J. Farmer, ... 2 00

Best yoke 3 years old steers, Stephen Reeves, ... $2 00
2d " 3 " Ira Murlin, ... 2 00
3d " 3 " W. S. Henderson, ... 1 00
Best yoke 2 years old steers, Wm. Whitfield, ... 3 00
2d " 2 " L. Sprague, ... 2 00
3d " 2 " John H. Button, ... 1 00
Best yoke 1 year old steers, A. S. Brooks, ... 2 00
2d " 1 " Jas. Whitfield, ... 1 00
3d " 1 " Warren Dunning, ... 1 00
Best yoke fat cattle, (no competition,) Cyrus Clark, ... 5 00
Best fat cow, " Samuel Hubbell, ... 3 00
Best 3 yoke of oxen from one town, C. W. Green, ... 10 00
2d best 3 " " C. A. Green, discretionary premium.

CLASS VI.—FOREIGN STOCK.

Best Durham bull, A. S. & M. L. Brooks, ... $4 00
Best Durham cow, A. S. Brooks, ... 4 00
1 Hereford bull, Willard White, ... Discretionary premium.
Best stallion, J. R. Briggs, ... 4 00
Best brood mare, C. W. Green, ... 4 00
Best French buck, Rufus Hunter, ... 3 00
Best Spanish buck, Wm. Bingham, ... Discretionary premium.
Best pen of fine wool ewes, Wm. Bingham, ... 3 00

CLASS VII.—BLOOD HORSES.

Best stallion, C. W. Green, ... $7 00
Best brood mare, C. W. Green, ... 6 00
2d best " 3 years old, C. W. Green, ... 4 00
Best 2 years old, F. C. Armstrong, ... 3 00
Best 1 " C. W. Green, ... 3 00
Best colt under 1 year, C. W. Green, ... 2 00

CLASS VIII.—HORSES FOR ALL WORK.

Best 4 years old stallion, Wm. Whitfield, ... $5 00
2d best 4 " H. Swan, ... 4 00
3d best 4 " S. Foster, ... 3 00
Best 3 years old stallion, S. D. Brown, ... 4 00
Best 2 years old stallion or gelding, B. F. Sheldon, ... 4 00
2d best 2 " " Geo. Postal, ... 3 00

3d best 2 years old stallion or gelding, J. M. Martin,..... $2 00
Best brood mare, with foal at foot, Edward Martin,..... 6 00
2d best " " W. Keeney,..... 5 00
3d best " " J. D. Voorheis,..... 4 00
Best 3 years old mare and colt, Allen Lawrence,..... 4 00
Best 3 years old mare, Isaac L. Smith,..... 4 00
2d best 3 " Wm. Whitfield,..... 2 00
3d best 3 " " 2 00
Best 2 years old mare colt, Joel T. Griffing,..... 4 00
2d best 2 " " Daniel Whitfield,..... 3 00
3d best 2 " " W. S. Adams,..... 2 00
Best 1 year old mare colt, Daniel Whitfield,..... 3 00
2d best 1 " " John Cary,..... 2 00
3d best 1 " " Moses V. Murlin,..... 1 00
Best 3 years old gelding, John R. Martin,..... 4 00
2d best 3 " Warren Dunning,..... 3 00
3d best 3 " C. Bullman,..... 2 00
Best 1 year old horse colt, Daniel C. Killam,..... 3 00
2d best 1 " " W. Keeny,..... 2 00
3d best 1 " " Daniel C. Killam,..... 1 00
Best colt under 1 year, B. Flint,..... 2 00
2d best " 1 " Stephen Durkee,..... 1 00

CLASS IX.—WORK HORSES.

Best farm team, William Davis,..... $6 00
2d best " Abel Cross,..... 4 00
3d best " Thomas Grow,..... 3 00
Farm team, Geo. H. Satterlee,..... Discretionary premium.
Best pair carriage horses 4 years old or over, B. Flint,..... $6 00
2d best " 4 " J. Derrick,..... 4 00
3d best " 4 " J. Young,..... 3 00
Pair carriage horses, J. J. Cole,..... Discretionary premium.
Best pair matched mares 4 years old and over, J. P. Wyckoff,.. 6 00
2d best " 4 " " H. N. Howard,.. 4 00
3d best " 4 " " S. D. Brown,... 3 00
Best pair matched mares or geldings 3 years old, H. Bogert,... 4 00
2d best " " 3 " L. G. Turner, 3 00

3d best pair matched horses or geldings 3 years old, C. A. Green, $2 00
Pair matched mares, S. Blanchard, ... Discretionary premium.
Best pair matched 2 year olds, Wm. Dingman, " "
Best single horse, (gelding,) 4 years old and over, J. Henderson, 3 00
2d best " " 4 " " H. W. Lord, 2 00
3d best " " 4 " " G. Truesdail, 1 00
Best single mare, L. C. Harger, ... 3 00
2d best " M. L. Brooks, ... 2 00
3d best " J. R. Tibbitts, ... 1 00

CLASS X.—SHEEP—SPANISH MERINO.

Best Spanish merino buck, H. N. Howard, ... $4 00
2d best " C. A. Green, ... 3 00
Best 5 Spanish merino ewes, C. A. Green, ... 5 00
2d best 5 " N. S. Schuyler, ... 3 00
3d best 5 " C. A. Green, ... 2 00
1 Silesian buck, N. S. Schuyler, ... Discretionary premium.

CLASS XI.—SHEEP—FRENCH MERINO.

2d premium, French merino buck, N. S. Schuyler, ... $3 00
3d " " " 2 00

CLASS XII.—SHEEP—CROSS OF BLOOD.

Best buck, N. S. Schuyler, ... $4 00
2d " E. L. Taylor, ... 3 00
3d " W. Holcomb, ... 2 00
Best pen of ewes, W. Holcomb, ... 4 00

CLASS XIII.—FAT SHEEP.

Best lot of fat sheep, (4,) C. A. Green, ... $3 00
2d best " (3,) Samuel Hubbell, ... 2 00

CLASS XIV.—SWINE.

Best boar, J. R. Martin, ... $4 00
2d " Joel Loomis, ... 3 00
Best breeding sow, Wm. E. Pier, ... 4 00
2d best " Daniel Kimball, ... 3 00
Best litter of pigs, not less than five, Edwin Phelps, ... 4 00
2d best " " W. E. Pier, ... 3 00

Litter of pigs, Daniel Kimball,.....Discretionary premium.
" A. Judson, ... "

CLASS XV.—POULTRY.

Best and greatest variety owned by exhibitor, E. H. Cressy,... $2 00
Best lot Cochin Chinas, 1 cock and 2 hens, J. T. Allan,..... 1 00
Lot Cochin Chinas, E. H. Cressy,.....Discretionary premium.
Best lot Shanghais, E. H. Bristol,..... 1 00
" Brahma Pootras, E. H. Cressy,..... 1 00
Lot Brahma Pootra chickens, J. Russell,.....Discretionary premium.
Best lot Chittagongs, 1 cock and 2 hens, J. Hiller,..... 1 00
" bantams, E. H. Cressy,..... 1 00
" turkeys, O. F. North,..... 1 00
" wild turkeys, L. Sprague,.....Discretionary premium.
" ducks, H. N. Howard,..... 1 00
" geese, white, Mrs. Nathan Douglass,..... 1 00
Lot dorking fowls, E. H. Cressy,.....Discretionary premium.
Lot Brahmas, E. H. Bristol,..... "
Lot black Spanish, E. H. Cressy,..... "
Lot imperial Shanghais, E. H. Cressy,..... "

CLASS XVI.—PLOWING MATCH.

First premium, single team, with horses, E. Harris,..... $5 00
2d " " " J. P. Terry,..... 3 00
First " " with oxen, Wm. Fisher,..... 5 00
2d " " " A. B. Bowdon,..... 3 00
First premium, double team, James Bayley,..... 5 00
2d " " H. F. Douglass,..... 3 00
3d " " James Terry,..... 2 00
First premium, boy under 18, with oxen, A. Wixom,..... 3 00

CLASS XVII.—FARM IMPLEMENTS.

Reaper and mower combined, 1st prem., Manny & Co., Discretionary.
Best horse power, Aaron Smith,..... $7 00
Best grain drill, Wm. S. Jenks & Bro.,..... 4 00
Best 2 horse, 3 seated carriage, Chas. Parsons,..... 5 00
Best 2 horse, 2 " " .....Dis. premium.
1 small rockaway hand buggy, T. Norton,..... "

Best cooking stove, S. V. Hakes,.....$ 4 00
Best parlor stove, R. B. Morris & Bro.,..... 2 00
6 cooking and parlor stoves, D. Saunderson,.....Dis. premium.
1 fanning mill, Nash & Blair,..... 3 00
1 " Daniel Phipps,.....Dis. premium.
1 clover harvester, J. B. Galloway,..... "
1 grain cradle, D. O. & W. S. Penfield,..... "
Cider mill and corn sheller, Aaron Smith,.....1st premium.
" D. Thorpe,.....2d "
Corn planter, J. Andrews,.....1st "
Hand corn planter, L. Tenny,.....2d "
Best double wagon harness, John Brodie,..... 4 00
Best single carriage " " 2 00
Best bridle, John Brodie,..... 1 00
Best horse shoe tile, John Danes, 1st premium,..... 2 00
Best pipe tile, John Danes, 1st premium,..... 2 00
Best half bushel measure, L. Sprague,.....Dis. premium.
Best two horse wagon, L. G. Tanner,..... 5 00
1 cross cut saw mill, Aaron Smith,.....Dis. premium.
1 cast iron roller, Wm. S. Henderson..... "
Revolving horse rake, T. P. Howard,..... "
1 wheel cultivator, R. B. Morris & Bro.,.....1st premium.
1 corn " " " ..... "
1 straw cutter, S. V. Hakes,..... 3 00
Best jointer plow, " 1 00
Best plow for general use, S. V. Hakes,..... 3 00
" for deep plowing, " 3 00
Best corn plow or hoe, " .....Dis. premium.
Best double plow, Albert Terry,..... "
Best washing machine, Thomas G. Mory,..... 2 00
Best atmospheric churn, " .....Dis. premium.
Gang plow, J. T. Allan,..... "
Corn plow, John Buckle,..... "

CLASS XVIII.—CABINET WORK.

Best specimens of cabinet work, Cromby & Petty,..... $4 00
Best 6 chairs, Cromby & Petty,..... 2 00

CLASS XIX.—DOMESTIC MANUFACTURES.

Class 1.

Best pair thick boots, M. R. Campbell,..... $1 00
" calf boots, " 1 00
" ladies' gaiters, " 1 00
" ladies' slippers, " 1 00
Best side of upper leather, G. R. Hixson,..... 1 00
Best calf skin, G. R. Hixson,..... 1 00
Best made vest, Lewis Goodman,..... 1 00

No competition on the above articles, but all are thought worthy of first premiums.

Class 2.

Best pair woolen blankets, Mrs. J. B. Taylor,..... $3 00
2d " " Mrs. Cyrus Hadsell,..... 2 00
Pair woolen blankets, S. D. Brown,..... Dis. premium.
Pair cotton and wool sheets, Mrs. Eddy Morrison,..... "
Best 10 yards flannel, Mrs. Cyrus Hadsell,..... "
Best 5 " Mrs. J. B. Taylor,..... "
Best 10 yards wool carpet, Mrs. E. Stuart,..... 4 00
2d best 10 " Mrs. J. B. Taylor,..... 3 00
Best 10 yards rag carpet, Mrs. Wm. Fisher,..... 3 00
2d best 10 " Mrs. E. H. Bristol,..... 2 00
10 yards rag carpet, L. Burlingham,..... Dis. premium.
Best 10 yards linen cloth, Mrs. Cyrus Hadsell,..... 2 00
Best pair linen stockings, Miss M. M. Richardson,..... 1 00
" woolen " Mrs. Wm. A. Denison,..... 1 00
" cotton " Mrs. L. L. Dunlap,..... 1 00
" woolen socks, Mrs. Wm. A. Denison,..... 1 00
Best sample woolen yarn, Mrs. N. Douglass,..... 1 00
Sample woolen yarn, Mrs. J. Lee Stout,..... Dis. premium.
Pair of fringed mittens, Mrs. John Thomas,..... "
" striped mittens, Mrs. J. Lee Stout,..... "
Best coverlet, Mrs. E. Stewart,..... 3 00
2d " Mrs. O. R. Adams,..... 2 00
Coverlet, A. W. Van Doren,..... Dis. premium.
" Mrs. S. D. Brown,..... "

CLASS XX.—BUTTER, CHEESE, MAPLE SUGAR, BREAD, HONEY, &C.

Best 5 lbs. butter in rolls, Wm. R. Jones,	$3 00
2d best 5 lbs. " Mrs. L. Burlingham,	2 00
Best lot 50 lbs. butter, Mrs. James Bayley,	5 00
2d " 50 " Mrs. J. P. Terry,	3 00

Cheese.

Best old cheese, Luther Lapham,	$3 00
Best new cheese, Mrs. Douglass,	3 00
2d best " Mrs. Ira Murlin,	2 00

Honey.

Best 10 lbs. of honey, A. Judson,	$2 00
2d best 10 " "	1 00

Bread.

Best 2 loaves milk rising bread, Mrs. Lowes,	$1 00
Best 2 loaves yeast bread, Mrs. A. H. Peck,	1 00
Best 2 loaves Graham bread, "	1 00
Best 2 loaves corn bread, "	1 00

CLASS XXI.—PAINTINGS, DRAWINGS, DAGUERREOTYPES, &C.

Best painting in oil colors, Miss Almira Le Roy,	$3 00
2d best " Miss M. M. Richardson,	2 00
Best painting in water colors, "	3 00
2d " " "	2 00
Best case daguerreotypes, C. T. White,	2 00
2d best " J. P. Carson,	1 00

Discretionary premiums recommended as follows:

Monochromatic painting, Wm. H. Treadway,	3 00
Specimens of card writing, "	2 00
Pencil drawing, Miss H. S. Tibbitts,	2 00
Pen drawing, Mr. H. S. Tibbitts,	2 00

CLASS XXII.—NEEDLE, SHELL AND WAX WORK, &C.

Best ornamental needle work, Mrs. Sheldon,	$2 00
Best ottoman cover, Miss M. M. Richardson,	2 00
2d best " Miss C. J. Caswell,	1 00

Ottoman cover, Miss M. M. Richardson,.....Dis. premium.
" Miss Francis,..... "
" Miss M. A. Foote,..... "
" " ..... "
Best fancy chair work with needle, Miss Richardson,..... 2 00
Best worked collar, Miss Voorheis,..... 1 00
2d best " " 1 00
Best lace cap, Mrs. A. Stone,..... 2 00
Best satin bonnet, " 2 00
2d best " Mrs. A. D. Allen,..... 1 00
Paper bonnet, Miss Fanny Mercer,.....Dis. premium.
" Mrs. Thos. Garner,..... "
Best 2 lamp mats, Mrs. L. P. Richardson,..... 1 00
Best specimen wax flowers, Mrs. Newton,..... 1 00
2d " " " 50
Best artificial flowers other than wax, Miss Carron,..... 1 00
Best worked quilt, Mrs. Lowes,..... 3 00
2d best " Mrs. Newton,..... 2 00
Worked quilt, Mrs. S. D. Brown,.....Dis. premium.
" Mrs. H. C. Linabury,..... "

The following articles are recommended for discretionary premiums:

Piece of embroidery, Mrs. C. A. Howard.
" silk apron, Miss North.
" Miss E. Carpenter.
Crochet collar, Miss C. J. Caswell.
" Miss F. Mercer.
Crochet tidy, Miss A. Crates.
" Miss C. North.
" Miss Stuart.
" Miss Harris.
" Miss H. Rogers.
Needle work, Mrs. A. Treadway.
" under sleeves, Miss C. J. Caswell.
" collar, Mrs. L. D. Benedict.
" " Mrs. J. W. Leonard.
" " Mrs. C. J. Caswell.
One pair of fire shades, Miss Lucy Peck.

One piece mosaic patch work, Miss H. Rogers.
1 velvet cushion, Mrs. A. C. Walker.
1 " Mrs. G. H. Satterlee.
1 chenille basket, Mrs. A. Treadway.
1 piece leather and hair work, Mrs. S. D. Brown.
1 " " "
1 " " Mrs. A. Tenny.
1 leather work box, "
1 " Mrs. Borland.

CLASS XXIII.—FLOWERS, &C.

Dahlias.

Best and greatest variety, J. T. Allan,	$2 00
Best single dahlia, "	1 00
Best 12 dissimilar blooms, "	1 00

Roses.

Best and greatest variety of roses, J. T. Allan,	$2 00
Best 12 dissimilar blooms, J. T. Allan,	1 00

Verbenas.

Best and greatest variety, J. T. Allan,	$1 00
2d " " Mrs. A. A. Lull,	50
Collection of green house plants, Mrs. G. W. Rogers,	2 00
Best hand bouquet, flat, J. T. Allan,	1 00
" round, "	1 00
2d best hand bouquet, round, Mrs. A. A. Lull,	50
Best and most beautifully arranged basket of flowers, J. T. Allan,	1 00

CLASS XXIV.—FRUIT.

Best 6 varieties good winter apples, 3 of each variety, named and labeled, grown by exhibitor, R. Adams,	$2 00
2d best as above, Chas. Elliott,	1 00
Best 6 varieties autumn apples, as above, J. T. Allan,	2 00
Best 12 specimens winter apples, single variety, Jas. Bayley,	1 00

Pears.

Best and greatest variety of good pears, named and labeled, grown by exhibitor, J. T. Allan, ... $2 00
2d best as above, Samuel Rood, ... 1 00

Peaches.

Best 10 specimens, J. Buzzard, ... $2 00
Best peck, D. Kimball, ... 2 00
Best seedling variety, J. Chamberlin, ... 2 00

Quinces.

Best peck, J. T. Allan, ... $1 00
Best 12 quinces, Mrs. C. Hadsell, ... 1 00

Grapes.

Best dish of grapes, C. Elliott, ... $1 00

Melons.

Best 2 specimens, J. T. Allan, ... $1 00
Best nutmegs, Wm. Harris, ... 1 00

Cranberries.

1 bushel cranberries, L. B. Rose, ... Dis. premium.

Citrons.

Best 2 specimens, Isaac Ostmun, ... $1 00
2 specimens, J. Hiller, ... Dis. premium.

Discretionary Premiums.

10 varieties of apples, Brayton Flint.
20 " M. Cross.
24 " Samuel Rood.
6 varieties of autumn apples, J. Chamberlin.
4 varieties of fall apples, W. R. Jones.

CLASS XXV.—VEGETABLES.

Best 3 flat turnips, Thos. Davis, ... $0 50
Best 3 blood beets, Jesse L. Stout, ... 50
Best 3 parsneps, Jairus Bryant, ... 50
Best 3 carrots, M. Cross, ... 50
Best 3 onions, J. L. Stout, ... 50

Best 3 vegetable oysters, A. C. Baldwin, ... $0 50
Best 3 heads cauliflower, " 50
Best 3 stalks celery, J. T. Allan, ... 50
Best 3 vegetable eggs, " 50
Best 3 pumpkins, Geo. F. Matthews, ... 50
Best 3 squashes, A. C. Baldwin, ... 50
Best tomatoes, " 50
Best peck Lima beans, J. T. Allan, ... 50
" peas, Joel Loomis, ... 50
Best and greatest variety of culinary vegetables, J. T. Allan, .. 2 00
" " roots for cattle, J. L. Stout, ... 1 00

Discretionary Premiums.

Ruta bagas, J. Waterfield.
Cabbage turnips, T. C. Harris, Jr.
Turnips, N. D. Bingham.
Mangel wurtzel, E. C. Church.

CLASS XXVI.—GRAIN, FLOUR, &C.

Best sample 2 bushels winter wheat, E. G. Deming, ... $3 00
Sample 2 bushels winter wheat, T. Davis, ... Dis. premium.
Best sample 2 bushels yellow corn, Joel Loomis, ... 2 00
" 2 bushels white oats, J. L. Stout, ... 1 00
Best 12 ears seed corn, N. D. Bingham, ... 50
Best bushel of clover seed, John Windiate, ... 4 00
" timothy seed, Geo. Hopkinson, ... 1 00
Best sample 2 bushels beans, M. Cross, ... 1 00
" 2 bushels peas, Joel Loomis, ... 1 00
1 barrel of flour, made from any quantity of wheat, (only sample,) M. Walters, ... 2 00

CLASS XXVII.—MISCELLANEOUS.

1 small stationary engine, deserving a premium, S. Harris.
1 cider mill and corn sheller, deserving a premium and favorable notice, Aaron Smith.
1 cross cut saw mill, (horse power,) a very useful article for sawing wood, (worth $90,) deserving a premium and notice, Aaron Smith.
1 clover seed harvester, recommended a small premium, J. B. Galloway.

1 double reed melodeon, a superior article, manufactured in Detroit, deserving of favorable notice, J. R. Eldredge.

1 cut rifle, manufactured in Pontiac, a very superior article, deserving a premium, W. Bowlby.

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At a meeting of the Executive Committee of the Oakland County Agricultural Society, held in the evening after the fair, at the office of the Treasurer of said Society,

Present, James Bayley, President; J. R. Bowman, Recording Secretary; Joseph A. Peck, Morgan L. Brooks, Calvin W. Green, Rowland E. Trowbridge, and William Whitfield, Executive Committee.

Resolved, That the sum of twenty dollars be paid to Professor Welch for his address delivered before this society.

Resolved, That one thousand copies of said address be printed in pamphlet form for circulation.

Resolved, That the Secretary procure a blank order book for the use of this Society.

Resolved, That the President, Secretary and Treasurer be a committee to audit the accounts for expenses incurred.

Resolved, That the Executive Committee meet at the office of the Secretary on the first Tuesday of February next ensuing, at 10 o'clock in the forenoon.

Adjourned.

J. R. BOWMAN,
Recording Secretary.

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At a meeting of the Committee appointed at the last meeting of the Executive Committee to audit the accounts for expenses incurred, held at the office of the Secretary on Monday, the 5th day of November, A. D. 1855,

Present, James Bayley, President; J. R. Bowman, Recording Secretary; Samuel E. Beach, Treasurer.

On motion, the following accounts were then allowed, viz.:

O. A. Stevens & Co., printing, &c., ... $42 13
Abel H. Peck, hay and pumpkins, ... 38 00

Z. B. Knight, printing and advertising,	$22 00
C. A. Howard, books and stationery,	6 07
H. N. Howard, pumpkins,	10 00
" work,	8 00

Adjourned.

J. R. BOWMAN,
Recording Secretary.

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TREASURER'S REPORT.

To the President of the Oakland Co. Agricultural Society:

SIR—I send you herewith my annual report of the financial condition of the Oakland County Agricultural Society, showing a balance in my hands, at the date, of $26 51. In addition, there is due from Isaac Caskey, for rails, the sum of five dollars.

SAMUEL E. BEACH,
Treasurer of Oakland Co. Ag'l Society.

Jan. 2, 1853.	To amount of cash on hand,		$111 30
Oct. 1, "	"	received from County Treasurer,	954 40
	"	membership and admission tickets,	748 09
			$1,813 79

Contra.—Cr.

By amount paid for improvements on fair ground,		$371 14
" " expenses of fair, including police, provender, &c.,		139 13
By amount paid Professor Welch,		20 00
" " O. A. Stevens & Co., printing,		42 13
" " Z. B. Knight, "		22 00
" " J. R. Bowman, Secretary, for salary 2 years,		150 00
" " for money loaned last year and interest,		330 00
" " on account of premiums,		712 88
" cash on hand,		26 51
		$1,813 79
Jan. 2, 1856. To balance to new account,		$26 51

At a meeting of the Executive Committee of the Oakland County Agricultural Society, held pursuant to notice, at the office of the Secretary, on Tuesday, the 5th day of February, A. D. 1856,

Present, James Bayley, President; J. R. Bowman, Recording Secretary; A. S. Brooks, Nelson W. Clark, Moses Wisner, Rowland E. Trowbridge, John W. Leonard, Linus Cone, Chauncey W. Green, Harris Newton, and Harrison Voorheis, Executive Committee.

The Committee on Farms and Gardens made the following report:

The undersigned, Committee appointed to examine farms and gardens, would respectfully report that they have discharged the duty devolving upon them, and that in their opinion the first premium on gardens should be awarded to James T. Allan, $15 00. The second premium to Augustus C. Baldwin, $10 00.

That no farms were entered for competition.

R. E. TROWBRIDGE,
M. L. BROOKS,
Committee.

February 4, 1856.

Resolved, That the above report be accepted, and that the premiums be awarded as recommended by the Committee.

Resolved, That the third premium on one three year old cow, exhibited at the fair of 1855, be awarded to Jesse Lee Stout, $3 00.

Resolved, That O. A. Stevens' account for printing the annual address, blanks, &c., be allowed at $33 50.

Resolved, That the Secretary procure a Diploma for the use of this Society.

Resolved, That the machine made by John Danes, for the manufacture of drain tile, and also the drain tile and pipe manufactured by him, deserves our especial notice, and that in addition to the premiums awarded him, he receive the Diploma of this Society.

Resolved, That the sum of seventy-five dollars be allowed the Secretary for his services the past year.

The Executive Committee then awarded the following discretionary premiums:

List of Discretionary Premiums for the year 1855, *awarded by the Executive Committee of the Oakland County Agricultural Society, at their Session at the Office of the Secretary, on the 5th day of February, A. D.* 1856.

Second best 3 yokes of oxen from one town, C. A. Green, ... $5 00
One Hereford bull, Willard White, ... Diploma.
Farm team, George H. Satterlee, ... 2 00
Pair of carriage horses, J. J. Cole, ... 2 00
Pair of matched 2 year old colts, William Dingman, ... 3 00
" " 3 " " S. Blanchard, ... 1 00
1 Silesian buck, N. S. Schuyler, ... 2 00
Litter of pigs, Dan Kimble, ... 2 00
" " Alfred Judson, ... 2 00
Coop of wild turkeys, L. Sprague, ... 50
" Brahmas, J. Russell, ... 50
" Dorkings, E. H. Cressy, ... 50
" Brahmas, E. H. Bristol, ... 50
" Black Spanish, E. H. Cressy, ... 50
" Cochin China, E. H. Cressy, ... 50
" Imperial Shanghai, E. H. Cressy, ... 50
Best 2 horse 2 seated carriage, Charles Parsons, ... 3 00
Small rockaway hand buggy, Theadoric Norton, ... 2 00
Fanning mill, Daniel Phipps, ... 2 00
Clover harvester, J. R. Galloway, ... 2 00
One cider mill and corn sheller, Aaron Smith, ... 2 00
One hand cider mill, D. Thorpe, ... 1 00
Corn planter, James Andrews, ... Diploma.
Gillmore's patent bee hive, A. M. Bodell, ... Diploma.
Model bee hives, Gillmore's Patent, J. A. Cook, ... Diploma.
Davis' patent platform bee hive, P. S. Winslow, ... Diploma.
Half bushel measure, L. Sprague, ... 50
Machine for making drain tiles, and for drain tile and pipe, John Danes, ... Diploma.
One wheel cultivator, R. B. Morris & Brother, ... Diploma.
One corn cultivator, do. ..... Diploma.
One corn plow or hoe, S. V. Hakes, ... 1 00
Pair woolen blankets, Mrs. S. D. Brown, ... 1 00

Pair cotton and wool sheets, Mrs. Eddy Morrison,	$1 00
Five yards of flannel, Mrs. J. B. Taylor,	1 00
Ten yards of rag carpet, Mrs. L. Burlingham,	1 00
Woolen yarn, Mrs. J. L. Stout,	50
Pair of fringed mittens, Mrs. John Thomas,	50
" striped " Mrs. J. L. Stout,	50
Coverlet, A. W. Van Doren,	1 00
" Mrs. S. D. Brown,	1 00
Monochromatic painting, William H. Treadway,	1 00
Pencil drawing, Miss Tibbitts,	1 00
Pen drawing, Mr. H. S. Tibbitts,	1 00
Specimen of writing, W. H. Treadway,	50
Ottoman cover, Miss M. M. Richardson,	25
" " Francis,	25
" " M. A. Foot,	25
" " M. A. Foot,	25
Paper bonnet, Miss Fanny Mercer,	25
" Mrs. Thomas Garner,	25
Worked quilt, Mrs. S. D. Brown,	25
" " H. C. Linabury,	25
Piece of embroidery, Mrs. C. A. Howard,	25
" " Miss North,	25
" " " E. Carpenter,	25
Crochet collar, Miss C. J. Caswell,	25
" " F. Mercer,	25
Crochet Tidy, " A. Coats,	25
" " C. North,	25
" " Stuart,	25
" " Harris,	25
" " H. Rogers,	25
Needle work, Mrs. A. Treadway,	25
" undersleeves, Miss C. J. Caswell,	25
" collar, Mrs. L. D. Benedict,	25
" " " J. W. Leonard,	25
" " Miss C. J. Caswell,	25
One pair of fire shades, Miss Lucy Peck,	25
One piece of mosaic patch work, Miss H. Rogers,	25

One velvet cushion, Mrs. A. C. Walker, ... $0 25
" " " G. H. Satterlee, ... 25
One chenille basket, " A. Treadway, ... 25
One piece of leather and hair work, Mrs. S. D. Brown, ... 25
" " " " 25
" " " Mrs. A. Tenny, ... 25
One leather work box, Mrs. A. Tenny, ... 25
" " Mrs. Borland, ... 25
One bushel cranberries, L. D. Rose, ... 25
Citrons, J. Hiller, ... 50
10 varieties of apples, Brayton Flint, ... 50
20 " M. Cross, ... 50
24 " Samuel Rood, ... 50
6 varieties autumn apples, John Chamberlin, ... 50
4 " " W. R. Jones 50
Ruta Bagas, J. Waterfield, ... 25
Cabbage turnips, J. C. Harris, Jr., ... 25
Turnips, N. D. Bingham, ... 25
Mangel wurtzel, E. C. Church, ... 25
2 bushels wheat, Thomas Davis, ... $2 00
1 small stationary engine, S. Harris, ... Diploma.
1 cut rifle, manufactured in Pontiac, a very superior article, W. Bowlby, ... Diploma.
1 cross cut saw mill, (horse power,) a very useful article for sawing wood, Aaron Smith, ... Diploma.

JOSEPH R. BOWMAN,
Recording Secretary.

The amount of premiums awarded by the Executive Committee to be paid in cash, is $796 50, being an increase over the year 1854 of $336 50.

The Society have received, during the year, the sum of $954 40, being the amount of the 1-10 of a mill required to be raised by the Board of Supervisors upon the taxable property of the county for agricultural purposes.

The sum of $371 00 has been expended during the year in improvements upon the fair grounds, in digging wells, setting out shade trees and making additions to the buildings, underdraining and seeding the grounds, &c.

In closing this report, permit me to say that the success of the fair exceeded the most sanguine expectations of the friends of the Society, the numbers in attendance being variously estimated at from 5,000 to 8,000 persons, and the two days during which it was held will long be remembered with pride and pleasure by those who were so fortunate as to have visited the fair grounds and witnessed the exhibition.

The address of Professor Welch was listened to by the thousands on the ground with marked attention. It was replete with instruction, enlightened and liberal in its views, and clothed in chaste and beautiful language. The Society unanimously voted to have it published.

We make the following extracts from the Pontiac Gazette in relation to the fair:

OAKLAND COUNTY FAIR.

On Wednesday and Thursday of this week the Oakland County Agricultural Society held its annual fair, in this village, at the commodious and beautiful grounds belonging to the Society.

Since the organization of the Society, there has been no fair in which the farmers have been more interested than in the present one; and none which has equalled it in the number of entries for premiums and in the quality of the articles exhibited. It is, in fact, in our opinion, as well as that of most, the best *agricultural fair* we have ever had in this county. The display, both as to number and quality of cattle, horses, vegetables, and apples, is fully equal to any we have ever seen. The season is too late for flowers, peaches, plums and such like. In several departments of "fine arts," so called, the display is better than usual, although this branch of the fair is not what it should be. The display of farm implements is not very extensive, but creditable. The carriages are few but of the best quality of style and workmanship.

Of the excellence of one article or animal over another, we should be puzzled to decide, but, no doubt, the committee will pass *their* judgment, and by our next issue we shall be able to lay before our readers a full statement of premiums, as well as of the doings of the Society.

There is every indication that the Society is in a prosperous condition.

THE FAIR—ITS SUCCESS.

In common with the citizens of Oakland county generally, we feel a pride in the success of the agricultural fair, held this week. We hesitate not to say it was the most satisfactory exhibition, the most orderly and best attended, we have ever had in our county.

In view of this satisfactory success, we feel inclined to look for its causes. Among these is the abundant vegetable growth everywhere prevalent this season. Our farmers, also, are more awakened to the propriety of annual meetings and exhibitions of this kind, and are becoming more desirous to be acquainted with all improvements. But all these, without the experience, tact and industy of the Society's officers, could not have availed to bring about so good a fair. To the officers we are indebted in a large degree for the success of the fair; to them belongs a meed of praise—the thanks of every good wisher of the agricultural cause. The estimation of the people was evinced by the spontaneous re-election of the old officers, nearly without exception—and if any officer was not re-elected, it was not because of a desire on the part of any man to throw a shadow of doubt upon the fitness of the man, or his faithfulness in his post of duty.

There is every prospect for the continued prosperity of the Society. This is cheering; for we believe there is nothing better calculated to arouse a proper interest in agricultural pursuits than the holiday of annual fairs. May the Society continue to prosper and be useful!

ADDRESS

DELIVERED BEFORE THE OAKLAND COUNTY AGRICULTURAL SOCIETY, BY PROF. A. S. WELCH.

Mr. President and Fellow-Citizens:

The wants of humanity are various and multifold. Man is endowed with a greater diversity of faculties and feelings, powers and passions, than any other created intelligence. Earth and heaven, time and

eternity, are united in his nature, and the demands of that nature draw upon the resources of two worlds. Classify these wants according to the force of emphasis with which each call for supply, and a single one will stand first and foremost upon the catalogue. The most immediate, imperative, and inflexible of all wants, from the cradle to the coffin, is the want of material sustenance. Starve man's moral sensibilities and he will still live; withdraw all intellectual aliment and he can still flourish and fatten as an animal; consign him to solitude and crush his social nature and he still sustains a sort of vegetable life; in short, blot out from his moral and intellectual skies all truth, and science, and beauty, and sublimity, and his heart yet beats with the pulsations of a rude existence; but once withdraw his daily rations and man dies—the race is extinct. Neglect them as we may all other wants incident to humanity, whether material or moral, in this we must be true to nature—the first to be supplied and the last to be withstood, to man as an inhabitant of earth—it is omnipresent and omnipotent. No wonder, then, that, in recognition of this primal necessity of human nature, God made the first man a tiller of the ground; thus recording in the history of creation itself the fact that life is the greatest of heaven's gifts, and horticulture the noblest of arts. No wonder that this same necessity has employed the thoughts and directed the pursuits of earth's millions, from that day to this. No wonder that the ancients deified those forces of nature which produce the fruits of the field, worshipping, most devoutly, the goddess of the golden harvest and the waving grain. No wonder that the moderns, from the same incitement, have anxiously sought all the aid that industry, and science, and art can bestow, to develop the wealth which is hidden in the soil. No wonder, I say, at all this; for the great problem that will force itself upon the attention of every age is: *How can the million best be fed?* And the full solution of such a problem will be the highest achievement of science—the loftiest conquest of industry and art.

But farther: the wants of humanity, whenever it has emerged from barbarism, have given rise to various and distinct pursuits. Every vocation in life is founded upon antecedent necessity, real or fancied. Now, it seems to me, the intrinsic dignity and worthiness of each pursuit should be determined from the character of the want it supplies.

Those pursuits which minister to mere vanity, or pleasure, or convenience, are surely less elevated than that which furnishes the means of life and crowns the earth with plenty. A calling which supplies necessities arising from the violation of nature's laws, is not quite so praiseworthy as that which serves those wholesome desires which spring from their harmonious action. Many a profession which now lives and thrives upon human weakness and human folly would become obsolete, if all men were wise, while the prosperity of others would increase in a similar ratio. Universal wisdom and goodness would consign the learned professions to the grave of oblivion, while the perfection in intelligence and morals that would follow would make every farm a paradise, and cause the "desert to rejoice and blossom as the rose." Fortunate is he whose business improves in proportion as society advances in all that is excellent. Thrice happy he whose prosperity depends not upon the vices and maladies of mankind. Luxury and prodigality fill the merchant's coffers; the prevalence of moral disorder and dishonesty, profits and stimulates the drudgery of the lawyer; grim disease gives to the doctor, day by day, his daily bread; but the farmer would stand on the pinnacle of thrift if vice, dishonesty, and disease were banished from the earth.

The agriculturist, farther, may regard, with feelings of just satisfaction, the intrinsic value of the products of his labor. Every commodity which industry creates, has either a real value, based upon qualities inherent in itself, or an estimated value, depending upon public opinion or fashion. Intrinsic value in an object lies in its actual utility in answering the demands of nature, and contributing to the comforts of life. Estimated value rests mainly in its power to gratify the lust of the eye or the pride of life. The latter is always inconstant and fluctuating; the former invariable and fixed. Objects of estimated value have their forgeries and false imitations, for all is not gold that glitters, nor is everything a gem that sparkles in the sunbeam. Objects of intrinsic value have their representatives in current coin, but never their counterfeits, for wheat and corn, and whatever commodity labor extracts from the earth, can never be bogus. We need no printed detector to determine the genuine article. The one supplies our real wants, the other those which are fictitious and fancied. One loaf of

bread will outweigh the jewels of Golconda. One of the old poets depicts, with graphic pen, a pair of philosopher's scales, the happy invention of an ancient monk, who as he assures us, resigning to thought his chimerical brain, formed a contrivance for weighing all things according to their genuine worth to the world:

"By skillful experiment, no matter how,
He found that ten chariots weighed less than one plow;
A first-water diamond, with brilliants begirt,
Less than one good potato, just dug from the dirt.
And a sword with gilt trappings, went up at full sail,
Though balanced by only a ten-penny nail.
Ten lords and ten dandies, ten courtiers, one earl,
Ten counsellors' wigs, full of powder and curl,
All heaped in one balance, and swinging from thence,
Weighed less than some atoms of wisdom and sense."

What a vast revolution would be made in the relations of men, if every character and every commodity that affects human happiness, should be weighed in the philosopher's scales. How the great deeps of modern society would be broken up, if everything animate and inanimate, should rank according to its genuine value. How universally would it verify the declaration that "pride goeth before destruction, and a haughty spirit before a fall." How would hard-handed industry, with its golden products, triumph over the baubles and tinselry with which vanity sets itself off, and how surely would society yield every place of honor to honest worth. It should be a source of generous pride to the farmer that, while many are giving the labor of a lifetime to that which is evanescent and worthless, the results of his own labor has a value quite independent of the rise and fall of stocks, or the fluctuation of the market.

A vocation, moreover, may be estimated by the associations which it brings. The happiness of life depends, in a high degree, upon the objects, whether animate or inanimate, with which we daily come in contact. The outer world gives shape to the inner. Men's characters are moulded by the peculiar features of the external world that surrounds them. The highest intellectual and moral types of mankind are found where earth puts on the habiliments of beauty, and pays, with munificence, the earnings of honest toil. Those regions which present the grandest forms and pay the highest premiums to industry,

have produced the greatest and best of men. Climate and soil have scarcely more to do in the growth of crops than in the development of a genuine manhood. Mental and moral worth catch their inspiration from whatever is beautiful or sublime in the material world. The natural products of a cheerless climate and sterile soil are barbarity and ignorance. Men will degenerate wherever nature withholds her gifts. The glaciers of the north and the African desert will forever produce the Esquimaux and wild Arab. But where sunny skies smile upon fruitful fields and fertilizing streams — where cultivated farms and happy homes forever greet and gladden the vision, there humanity attains its truest growth, and the noblest product is *enlightened mind.*

Thus the influences that lend to individual character its shade and shape, are widely various and ever active—men are wont to give to the term *Education* a significance which is far too stinted and narrow. Educational processes are not confined to the nursery or the school room or to College halls. They begin in infancy, and end only with life. The social and moral and physical worlds are constantly furnishing the means by which mind is unfolded and formed. Whatever arouses passion, or stimulates desire, or awakens an emotion, or suggests a thought, performs its part as one of those forces which are inevitably educating the man. Everything upon which the intellect can act, reacts and leaves its indelible impress. There is not an object that appeals to the senses—that paints its image on the retina of the eye, or wakes into music the tympana of the ear, that does not lend its item of aid in giving to each character its peculiar stamp. It is of vital moment then, in choosing a vocation, to inquire not only with what profits it fills the pocket, but also with what furniture it stores the mind. So far as regards its regular and sure returns, its steady responses to the calls of labor, agriculture is inferior to no other pursuit; but when estimated from its reflexive effects upon the qualities of the man, it is far superior to all. There is not another calling which so elevates and expands the energies of the soul as the tilling of the soil. The mechanic, day after day, plies the same tools, prone and pent within his narrow workshop, until his mind catches the hue of its dingy walls. The teacher breathes the vitiated air of the school room, and encounters its petty

vexations, until his shattered nerves are reflected from a countenance whose expression is suggestive of acids and aloes. 'Twould be strange if the lawyer should never find that the atmosphere of rascality, which surrounds him, is contagious. But the farmer deals with nature in her purer and better aspects. His round of duties bring him daily in contact with scenes of natural beauty. His grateful task is to fulfill the conditions upon which a beneficent creator supplies the wants of his creatures. It is his province to preside as the high priest of nature, over those mysterious processes by which she produces, in beautiful succession, the bud, the blossom, and the fruit—as in an open volume, he may read those revelations of wisdom and goodness which God makes to man, in the ever-returning miracles of death and resurrection of the vegetable world. He is a co-worker with God, marshaling and directing nature's wonderful forces. He deposits the seed in the mellow soil, and the same creative power which formed man himself from the dust of the earth, breathes into it the breath of life. The loftiest view that was ever gained of Deity, is when he is regarded as the omnipresent and immediate agent in all the ceaseless changes which are going on, everywhere, in the material universe. The growth of the humblest plant or shrub, is an exertion of Almighty power, as direct and as actual as that which spoke creation into being. Spring comes as an annual savior "to kill old winter with her glorious looks, and turn her course to flowers." But there is no intrinsic power in spring alone, to perform these annual wonders. It is God himself, moving with creative energy upon the face of nature, and light and heat, day and night, sunshine and shower, are the mere means through which he works. God breathes with vitalizing breath upon the leafless trees and naked fields, until they quicken with new life, and vegetation leaps rejoicing from its grave. God comes in the fertilizing warmth of summer, and the earth, clothed with rich foliage and waving harvests, smiles responsive to his touch, and when autumn bestows, as the rewards of patient toil, its golden grains and luscious fruits, these are only the embodiment of that infinite benevolence and power in which we not only, but everything that has vegetable or animal life, lives and moves and has its being. Should any reflecting mind fail to see in all this the evidence of an omnipresent divinity? Do we not too often regard the changes and

forms around us with a calm indifference, as though each particle of inert matter were endowed with a power distinct from its Maker, by which it could perform its ceaseless and ever-varying evolutions? Is the acorn a creature of volition and mechanical skill, so that it can build the wide-spreading oak out of materials furnished by its own vesicles and fibres? Has the tiny seed the power of self-motion or self-transformation, so that it can change itself to the complicated structure of the stalk? If not, then these metamorphoses, constantly taking place in the physical world, are the invariable effects of an agency foreign to the material on which it acts; and all the phenomena of the bursting germ—the shoot, the leaf, the bud, the blossom, and the fruit—are the visible manifestations of an all-pervading intelligence. Nothing short of the almighty fiat that created a universe, can create the humblest flower that opens its petals to the sun. What then are growth and development in every department of nature, but the indication of an omnipotent creator? What are the so called natural laws but his uniform ways of acting? To such reflections the occupation of the farmer will naturally lead. With such truths does he hold intimate and constant communion. Such are lessons to be learned from the volume which is opened for his daily perusal. There is reason, then, in the fact that the tone of his moral and religious sentiment is generally higher than that of those whose range of observation is more contracted, and whose pursuits surround them with associations which are less instructive. Look for cold infidelity in cramped and crowded cities, where vice lurks, and pestilence comes as a scourge of depravity and sin. Look for heartless skepticism, where hard pavements and hateful walls obstruct the vision—where the sun sets a little past mid-day, behind quadrangular piles of brick and mortar, and men are the willing slaves of an unrelenting close-fisted business. Seek for the atheist where monotonous labor and confinement leave no leisure for reflections—where the objects of daily intercourse never appeal to his better nature; and when you have found him, prescribe as a sure remedy for his mental opacity a life upon a farm. There let dumb brutes, and groves, and birds, and orchards and tilled fields, become his teachers, and let him learn from them, the tenets of a nobler creed; for atheism is not an agricultural product. It can never grow, side by side, with trees or flowers. It can

thrive in the hot-beds of the populous town, but dies out upon the farm. Such, I believe, in all sincerity, is the natural influence of agricultural pursuits. So far as my own observation extends, the earnest agriculturist is rarely a skeptic—all honor to the profession, the true tendency of which is to raise men's thoughts to that being by whose infinite benevolence, life and all its attendant comforts are ours. This it is that constitutes the peculiar dignity of the farmer's mission, and I have little sympathy with those young men whose mistaken ambition and false views of life lead them to abandon an employment which has so many incitements to virtue, and to seek a petty position in some city where the temptations to vice are so great and the pay so small.

And now let me crave your indulgence while I furnish a few hints as to the education requisite to the successful prosecution of the farmer's work. On this topic I confess to some misgiving as to my own ability to give instruction. For although I look forward with pleasure to the prospect of ending my days in the tranquil enjoyment which such an occupation affords, still I am, as yet, without any very extensive practical experience. But observation and careful reflection on my own part, have long since induced the belief that in a business like the farmer's, which combines both mental and manual effort, a special educational preparation is a pre-requisite to complete success. Indeed, I will hazard the general assertion that young men, aye, and in many cases, young women, too, could spend with incalculable profit a given time in some well-conducted institution, where they could learn the elements of science and art which underlie the employment of their future years. Every thrifty farmer knows that judicious head-work diminishes toilsome hand-work in a hundred-fold ratio; and I do not fear that, before an audience of intelligent men, I shall give utterance to an unpalatable ultraism, when I say that, other things being equal, that farm will yield the most generous returns on which labor is expended upon scientific principles. There is now no department of human industry to which art does not give most important contributions. The great glory of the present age lies in the fact that science has scouted, as fruitless and futile, the idle speculations of olden time—has joined hands with labor, and turned, like a good angel, to minister to the actual necessities of mankind. All know full well how effectually the aids it has

furnished have banished those long and laborious processes of husbandry in vogue thirty years ago. Thanks to science, the toilsome old flail which I swung in boyhood is obsolete. The sickle is among the things that were, and the strong horse does the work of the human arm. Thanks to science for those noble achievements which expand the intellect in proportion as they relieve the hand—which weave our fabrics with iron fingers and do our drudgery with muscles of steel. Let these welcome facilities be multiplied until the farmer, with a farm cultivated to its highest perfection, shall still have leisure for wholesome recreation and rest. Let science extend her innumerable conquests over dull matter, and furnish her thousand expedients in the workshop and in the field, to soften the asperities of human toil. Let her treasures continue to flow in the channels of industry, and let all gratefully acknowledge the value of her gifts. If it be true, as it undoubtedly is, that science has given to the agriculturist most important and efficient aids, is it not equally true that he should have some antecedent knowledge of truths to which he owes so much?

I would have the farmer, then, gain such a knowledge of the principles of science that he can make a safe and successful application of these to the accomplishment of the objects for which he labors. On this point let me not be misunderstood. I am far from believing that mere scholastic acquisition can ever, in the slightest degree, supercede the necessity of actual experience. A novice in the manual operations of the meadow and the field, however well taught in the best theories of the day, would hazard the loss of whatever he invests in attempting to reduce his theories to practice. Many a man who is tired of the hum-drum of city life, goes forth on an enterprise of rural pleasure and profit, arms himself with agricultural books, periodicals, and new-fangled machines, and expects to astonish the world with the amazing results. He dwells in anticipation upon the fancied enjoyments which rusticity affords, and counts in imagination the hard coin which the proceeds will annually bring. Very likely he has read and dreamed of the poetry of life in a cottage. But all the poetry and sentimentality of his new position vanish when he comes in contact with the plain prose of hard work. He soon discovers, by dear-bought experience, that he has chosen a business not suited to his genius, and, with deep disgust at his

failure, abandons the enterprise as an unprofitable speculation. The fact is that abstract knowledge is well nigh useless, except as a means of mental discipline, unless it can be applied in the actual manipulations of the farm. Of the mere book-worm and the cut-worm, the former is the greater nuisance to the field. But the case is widely different when scientific knowledge comes as an aid to practical observation and experience. Of course, the practiced judgment and manual skill to be gained as an operative is indispensable to success, but an intimate acquaintance with the facts of science which lie at the basis of every operation, will surely enhance that success and make it doubly secure. The surveyor, for instance, who knows how to handle his compass, may do much with a practiced eye, even if he be deficient in trigonometry, but he will hardly become a great and accurate engineer, in the highest sense of the term, until, in addition to manual practice, he has grasped all the mathematical science which is applicable to it. Would it not pay well to the stock raiser, if in addition to the valuable items of information which he has gleaned from personal observation, he should learn the anatomy and physiology of animals, the chemical composition of their food, the various diseases to which they are liable, together with their causes and cures?

Would it not be a valuable acquisition to the agriculturist who desires the highest profits from the land he cultivates, to be so far familiar with the experiments of chemistry that he can analyze accurately the various soils, and thus determine, with precision, what ingredients are present, and whether any must be added in the form of manures, in order to sustain the crop intended to be raised? Chemistry traces all the changes and re-combinations of matter in every period of vegetable growth—reveals minutely the various elements which compose the structure of the plant, and the plant will flourish and thrive only in the soil where a full supply of such elements is found—the root is constantly thrusting out, in every direction, its tender fibres and delicate bulbs, in search of the atoms which constitute its natural food. Should analysis find such atoms are wanting, they must then be supplied from the various means of fertilization which the farmer can command. These facts may be determined by a few simple experiments made with apparatus which all can obtain; and they are the facts on which rests the whole system of

rotation in crops and the judicious application of manures. Such are a few of the many considerations which should induce the young farmer to prepare for the duties of his vocation by some practical progress in chemical science. In such an attempt he will gain, moreover, glimpses of the almost incredible benefits which this science is yielding to every department of human welfare. Its tireless searchings have developed innumerable resources of which antiquity had never dreamed. It heals the sick, feeds the hungry, and clothes the naked. It gives to subtle poison its antidote—to disease its specific—to calamity its consolation—to danger its defence—turning night to day, it lights up whole cities, and through a thousand avenues, adds to convenience and gratifies taste. It catches and gives visibility to those viewless images which quiver in untold myriads upon the undulations of light. It extracts beautiful colors from crude ores—compels the earth to yield her slumbering stores—pulverizes the shapeless rocks which have lain useless upon earth's surface for ages, to fertilize the soil, and changes the very stones to bread. It has infused its energies through every vein of civilization. Its life is measured by its rapid changes—by thrilling events and crowded ideas; men live longer now than did Methuselah of old. Such is one of the studies which the young farmer is earnestly urged to pursue. While it stores his mind and cheers his efforts, it is sure to conduce to his ultimate prosperity.

It is one of the happiest features of the present that the means of information are so widely sown that knowledge is becoming as common as the air we breathe. A few well selected agricultural books and papers will pleasantly employ his interval of rest, or if he have leisure he can soon resort to a State institution, where every branch of science connected with his employment will be thoroughly and successfully taught. I cannot close without paying a just tribute to the wisdom which has furnished the citizens of Michigan, so many means for the mental cultivation adapted to every condition and pursuit. Not another State has so fully supplied, from the public resources, the educational wants of the young. The common and union schools, which are accessible to all, lie at the basis of the entire system. The teacher has his Normal school; the general student his University; the physician his College; and a spacious and beautiful tract has lately been purchased,

as all are aware, on which to establish a school for the farmer. May thousands from every quarter of the State gather to these noble institutions, and derive therefrom such permanent advantage that there shall grow up between labor and learning a strong and abiding sympathy.

OTTAWA COUNTY.

EASTMANVILLE, OTTAWA CO., MICH., }
March 15th, 1856. }

J. C. HOLMES, ESQ., *Sec'y Mich. State Agricultural Society:*

I herewith transmit a copy of articles of association, duly signed and acknowledged by twelve persons, inhabitants of Ottawa county, who have organized themselves, with their associates and successors, into an association to be designated and known in law as "The Ottawa County Agricultural Association," to be filed in your office, in conformity to act No. 80, Session Laws 1855.

The farmers of our county have awakened, and a county organization is effected, and we trust to continue *wide-awake* for all time to come. An effort was made four years ago, a meeting held, officers elected, a fair appointed. Unfortunately, the day was gloomy, dark, it rained, and our farmers all preferred to shelter themselves under the protection of the lofty, thick, wide spread foliage of the deep evergreen heaven pointed pine, to which all eyes were then bent for the golden harvest, rather than to think of extracting it from where it really lies hid in the soil. Our efforts slept—but the few pine lands in this county, which only border our rivers and rivulets in narrow belts, and which are rapidly and "beautifully" growing mighty less every year, are now completely monopolized by the few, while the bulk of our people are *at liberty* to turn their attention to their own true interests, and to the future great and staple interest of our county, which is farming—wheat and stock growing in particular—in which, when our resources shall be fully developed, in due time, we are not to be excelled by any sister county in the State. We have caught their inspiration, and a goodly number of our hard fisted and intelligent yeomanry have come forward and paid

the necessary fee—a sure evidence of their faith and courage. Eighty odd, with their wives and little ones, assembled on the first limited notice and made themselves members. We hope much of our works. You will receive some accounts hereafter, from

Your most obed't serv't,

TIMO. EASTMAN,

Secretary Ottawa Co. Ag'l Society.

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ARTICLES OF ASSOCIATION of the Ottawa County Agricultural Society.

ART. 1. Henry Pennoyer, Timo. Eastman, Simeon Hazleton, Grosvenor Reed, L. M. S. Smith, Geo. Luther, Perley Lawton, Allen Stoddard, Geo. Baxter, Charles Buck, Geo. Parks, and Alfred B. Sumner, their associates and successors, inhabitants of Ottawa county, Michigan, are hereby associated and organized under act No. 80, of Session Laws of 1855, into a Society for the advancement of agriculture, horticulture, the mechanic and domestic arts, to be designated and known in law as the "Ottawa County Agricultural Society."

ART. 2. Its officers shall be a President, Vice President, Secretary, Treasurer, and seven Directors, who shall together constitute an Executive Board for the management of the concerns of said Society, a majority whereof shall be a quorum, and they shall so manage the property and concerns of said Society as will best promote its interests and professed objects; and there shall be a Corresponding Secretary in each town in the county; all which officers shall hereafter be elected annually by the stockholders of said Society, on the last day of holding the annual fair, at such time and place as shall be notified in the premium list or exhibition bill. The officers for the current year are hereby appointed and named in section seven of these articles of association.

ART. 3. The annual meeting of the Executive Board shall be held on the first Monday of December, at the place of holding the last annual fair, when and where the officers shall make their requisite reports, and which shall be the close of the Society's fiscal year and of the official term of its officers, and upon its adjournment shall commence the term of the officers elect; but all officers shall continue to discharge

the duties of their offices until others are chosen and qualified to fill their places.

ART. 4. Before entering upon their duties, the officers elect, constituting the Executive Board, shall file a written acceptance with the Secretary; the Secretary and Treasurer shall each give bond in such penal sum as the Board may direct, running to the Ottawa County Agricultural Society, with one or more sureties, to be approved by the President, and which bonds shall be filed with the President.

ART. 5. The Executive Board are vested with power, at any regular meeting, to fill any vacancy in its numbers that occur by reason of death, resignation, or any legal event, and they may make by-laws prescribing the duties of the several officers and rules for the management of the Society generally, not incompatible with these articles of association; may hold fairs and exhibitions, and may distribute premiums for the best and most meritorious animals or articles exhibited in the several departments of the arts for the promotion of which the Society is formed, as shall be by their by-laws and regulations provided.

ART. 6. Any resident of Ottawa county, by the annual payment of one dollar to the Treasurer or Secretary, and by subscribing to these articles of association, shall be a stockholder of the Society.

ART. 7. The officers for the current year are: Henry Pennoyer, President; Simeon Hazleton, Vice President; Timo. Eastman, Secretary; Geo. Luther, Treasurer; Geo. Baxter, Perley Lawton, John H. Davidson, Hiram Jennison, John S. Burton, Henry C. Durphy, and Wm. M. Ferry, Jr., Directors; J. Skeels, of Jamestown, C. Bosworth, Georgetown, Grosvenor Reed, Allondale, A. H. Vredenburg, Blendon, Frederic Ranney, Robinson, Geo. Parks, Ottawa, M. Van Hees, Zealand, A. C. Van Roolte, Holland, L. M. S. Smith, Spring Lake, A. Bartholomew, Crockery, A. B. Sumner, Polkton, E. Stafford, Ravenna, L. Chubb, Chester, R. Hilton, Cazenovia, Charles Buck, Wright, A. Stoddard, Tallmadge, C. Davis, Muskegon, and Ira O. Smith, of Norton, Corresponding Secretaries.

ART. 8. The President, Secretary and Treasurer of the Society, shall, on or before the 20th day of December in each year, make out and transmit to the Secretary of the State Agricultural Society, at his office, a statement of the transactions of said Society for the preceding year, iving a full detail of the receipts and expenditures thereof, with a list

of the premiums awarded, and to whom and for what purpose, which statement shall be previously prepared by the Executive Board, at its annual meeting, and published by them in some newspaper of the county, or of an adjoining county.

ART. 9. These articles of association may be amended at the annual meeting for the election of officers, by a majority of the stockholders present at said meeting.

STATE OF MICHIGAN, } ss.
County of Ottawa, }

Personally came before the undersigned, a Notary Public in and for said county, this 20th day of February, A. D. 1856, Henry Pennoyer, Simeon Hazleton, Timothy Eastman, George Luther, George Baxter, Perley Lawton, Grosvenor Reed, George Parks, L. M. S. Smith, Alfred B. Sumner, Charles Buck, and Allen Stoddard, and severally acknowledged that they executed the foregoing articles of association, for the purpose of perfecting the organization of the Ottawa County Agricultural Society.

HENRY PENNOYER,	TIMO. EASTMAN,
SIMEON HAZLETON,	GROSVENOR REED,
L. M. S. SMITH,	GEO. LUTHER,
PERLEY LAWTON,	ALLEN STODDARD,
CHARLES BUCK,	GEORGE BAXTER,
GEORGE PARKS,	ALFRED B. SUMNER.

WM. N. ANGEL,
Notary Public.

SHIAWASSEE COUNTY.

LIST OF PREMIUMS

Awarded at the Sixth Anniversary of the Shiawassee County Agricultural Society, held in the village of Corunna, on Wednesday and Thursday, the 26th and 27th days of September, A. D. 1855:

The committee on horses report as follows:

CLASS I.—BLOOD HORSES.

Best stock horse, "Sir Henry," N. Cook,	$6 00
Best stock horse 3 years old, S. Z. Kenyon,	4 00
2d best " 3 " C. Harrington,	3 00
Best blooded mare, S. Z. Kenyon,	3 00
2d best " C. S. Kimberly,	2 00
Best mare 3 years old, " Transactions and	2 00
2d best mare 3 " A. L. Gilbert,	2 00
Best colt 1 year old, N. Cook,	2 00

G. W. HARRIS,
WM. FRAIN,
P. M. ROWELL,
Judges.

CLASS II.—HORSES FOR ALL WORK.

Best stock horse, "Ranger," E. Cook,	$5 00
2d best " "Robin Hood," C. S. Johnson,	4 00
Best 3 year old, E. Cook,	4 00
2d best 3 year old, A. Purdy,	3 00
3d best 3 years old, L. H. Parsons,	2 00

Best 2 year old mare, I. Derr, Transactions and $2 00
2d best 2 " A. C. Cooper, ... 2 00
Best 1 year old colt, J. Wallace, Transactions and 2 00
2d best 1 year old colt, L. L. Howes, Transactions and 1 00
3d best 1 " S. Z. Kenyon, ... 1 00
Best sucking colt, N. Cook, ... 1 00
2d best " S. Z. Kenyon, ... 50
Best breeding mare and foal, J. Davids, ... 3 00
Best matched horses, Wm. Frain, Transactions and 2 00
2d best " A. Van Auken, ... 2 00
3d best " E. Eddy, ... Transactions.
Best single horse in harness in ring, G. N. Roberts, ... 2 00
2d best " " S. Z. Kenyon, Transactions and 1 00
Best lot of horses owned by one man, S. Z. Kenyon, Transactions and 2 00

We recommend a premium on the following:

Best matched 2 year olds, J. M. Rice, Transactions and 1 00
2d " 2 " N. P. Harder, ... 1 00

Many other specimens of horses were on exhibition which any county might feel proud to be the possessor of.

J. A. DIVER,
J. W. MANN,
E. SOLSBURY,
Judges.

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CATTLE.—CLASS III.—SHORT HORNS: CLASS IV.—DEVONS: CLASS V.—AYRSHIRES, HEREFORDS AND HOLDENESS.

The Judges of the above classes do not think that there was any full blooded stock that came under their investigation, and do not award any premiums.

F. C. RATHBURN,
JOHN DUTCHER,
S. HAWKINS,
Judges.

CROSS BLOODS.

The committee on cross bloods would report as follows:

Best cow, Enoch Eddy, Transactions and $1 00
2d best cow, R. L. Johnstone, ... 1 00
Best yearling heifer, Dwight Johnson, ... Michigan Farmer.
Best heifer calf, E. Eddy, ... "

A. PURDY,
A. L. GILBERT,
S. H. McCOY,
Judges.

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GRADE CATTLE.

The committee on grade cattle would respectfully report as follows:

Best 4 year old bull, E. Cook, Transactions and $2 00
Best 3 " A. L. Gilbert, ... 2 00
Best 2 " A. Gould, ... 2 00
Best yearling bull, B. M. Waterman, ... 1 50
Best cow, C. S. Johnson, ... Transactions.
2d " " 75
Best cow and calf, A. Gould, ... Transactions.
Best 2 year old heifer, C. S. Johnson, ... 75
2d best 2 " E. Cook, ... 50
Best bull calf, E. Cook, ... Michigan Farmer.
2d best " Mortimer Doty, ... 50

Several yearling heifers were exhibited, but were not worthy of a premium.

Judges same as in cross bloods.

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CLASS VI.—NATIVES.

The committee report as follows:

2d best heifer 2 years old, G. Tuttle, ... $0 75
Best bull calf, J. Wallace, ... Michigan Farmer.
Best heifer, J. Wallace, ... 50

2d best heifer, J. Wallace, ... $0 38
Best cow, E. F. Wade, ... Transactions.
2d " J. Wallace, ... 75

I. CASTLE,
Chairman.

—

CLASS VII.—OXEN AND STEERS.

Best working oxen, S. Hawkins, Transactions and $3 00
2d best " Ira Pate, Michigan Farmer and 2 00
3d best " L. L. Howe, ... 1 00
Best yoke steers 4 years old, E. Cook, ... 2 00
2d best " 4 " A. C. Cooper, ... 1 00
Best " 3 " B. F. Toby, ... 2 00
Best " 2 " S. Hawkins, ... 1 00
2d best " 2 " E. Cook, ... 50

Many other specimens of good cattle were in this class and should have been allowed a discretionary premium.

Judges same as in class 6.

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CLASS VIII.—SWINE.

Best Suffolk boar, "Enterprise," Ira Sweet, Transactions and. $1 00
Best Suffolk sow, "Aunt Chloe," C. R. Gilbert, Transactions and 1 00
Best Berkshire and Byfield boar, R. L. Johnstone, ... 1 00

The committee would say that if more attention was paid to the raising of swine, much more might the farmer, as well as the mechanic, be promoted thereby.

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CLASS IX.—SHEEP.

The committee on sheep beg to make the following statement of their judgment in regard to the quality of sheep that came under their investigation.

Best merino buck, L. H. Parsons, ... $3 00
2d best " A. Purdy, ... 2 00
Best Spanish merino buck lamb, J. W. Brewer, Transactions and 50

2d best Spanish merino buck lamb, L. H. Parsons, ... $0 50
Best pen of ewes, L. H. Parsons, Transactions and 2 00
2d best " J. W. Brewer, ... 1 00

Some other sheep were on exhibition which cannot be called anything, but belonging to the first quality.

G. M. REYNOLDS,
C. R. GILBERT,
E. EDDY,
Judges.

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CLASS X.—POULTRY.

Best coop Brahma Pootras, S. H. Peck, ... $0 50
2d " " " 25
Best coop Cochin Chinas, L. H. Parsons, ... 50
Best coop Shanghais, J. M. Fitch, ... 50

Quite a falling off in the "hen fever," to what it was last year, and it must now be considered to be in the "sweating stage."

O. CORCORAN,
S. BURT,
S. B. LYMAN,
Judges.

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CLASS XI.—BUTTER, CHEESE, SUGAR AND HONEY.

Best 10 lbs. butter, John Daniels, ... Michigan Farmer.
2d best 10 " P. Goldsmith, ... $0 75
3d best 10 " Wm. Morris, ... 50
Best 50 lbs. cheese, L. Lyman, ... 2 00
2d best 50 " " 1 00
Best 10 lbs. maple sugar, C. R. Gilbert, ... 50
Best 10 lbs. honey, J. Gunsolly, ... 50

An epicure might envy the richness of the butter and cheese that was on exhibition.

ALBERT GAGE,
J. KENNEY,
E. COMSTOCK,
Judges.

CLASS XII.—FIELD CROPS.

Best bushel wheat, J. R. Thompson,	$2 00
2d best " "	1 00
Best bushel corn, S. Frain,	1 00
2d best " C. R. Gilbert,	50
Best bushel oats, L. H. Parsons,	1 00
2d best " P. Goldsmith,	50
Best bushel potatoes, R. Lyons,	50
2d best " M. Doty,	38
3d best " C. S. Johnson,	25
Best beans, E. Eddy,	50
2d " B. M. Waterman,	25

R. F. GULICK,
A. BAKER,
A. PINGREY,
Judges.

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CLASS XIII.—FRUIT.

Best 18 varieties apples, E. Eddy,	$0 75
2d best 18 " W. Morris,	50
Best lot peaches, W. G. Smith,	75
2d best lot peaches, H. Beardslee,	50
Best lot pears, Wm. Frain,	50
Best lot quinces, L. H. Parsons,	50
2d best lot quinces, Wm. Frain,	38
Best nutmeg melon, R. Lyons,	38

The fruit on exhibition would compare favorably with that of the older settled counties.

E. COMSTOCK,
JOHN RUSHTON,
Judges.

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CLASS XIV.—GARDEN VEGETABLES.

Best peck peas, L. K. Minor,	$0 50

2d best peck peas, R. Lyons,	$0 38
Best lot beets, "	50
2d best lot beets, G. Tuttle,	38
3d best lot beets, S. L. Parks,	25
Best lot squashes, W. Pate,	50
2d best lot squashes, S. Frain,	38
Best string white onions, P. Goldsmith,	50
2d " " C. R. Gilbert,	38
3d " " S. Frain,	25
Best string red onions, R. Lyons,	50
2d " " G. Tuttle,	38
Best cabbage, E. Eddy,	50
2d " L. R. Minor,	38
3d " R. Lyons,	25
Best cauliflower, J. Rushton,	50
Best tomatoes, R. Lyons,	50
Best vegetable eggs, H. Beardslee,	50
Best lot carrots, R. Lyons,	50
2d best lot carrots, L. K. Minor,	38
Best pumpkin, J. R. Thompson,	50
2d " P. Goldsmith,	38
3d " S. L. Parker,	25
Greatest lot by one person, R. Lyons,	50
Best turnip, L. K. Minor,	38
Best ruta baga, R. Lyons,	38
Best cucumber, G. E. Moore,	50
Best red pepper, "	38

B. M. WATERMAN,
J. W. BREWER,
REUBEN GRIGGS,
Judges.

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CLASS XV.—DOMESTIC MANUFACTURES.

Best 10 yards woolen cloth, P. S. Lyman,	$2 00
2d best 10 " "	1 00

Best 10 yards woolen flannel,	J. W. Brewer,	$2 00
2d best 10 "	P. S. Lyman,	1 00
Best woolen blanket,	L. Castle,	2 00
2d best " "		1 00
Best union carpet,	A. C. Cooper, Michigan Farmer and	$1 00
2d best "	J. W. Brewer,	
3d best "	L. Castle,	Transactions.
Best rag carpet,	F. C. Rathburn,	1 50
2d " "		75
3d "	H. Ruthruff,	50
Best hearth rug,	L. Castle,	1 00
2d best "	J. W. Brewer,	75
Best lb. stocking yarn, white,	F. C. Rathburn,	1 00
2d " " " "		75
Best lb. stocking yarn, mixed,	F. C. Rathburn,	1 00
2d " " "	H. Ruthruff,	75
Best woolen stockings,	F. C. Rathburn,	50
2d " " "		38
3d " " "		25
Best cotton " "		50
Best linen "	P. Goldsmith,	50
2d " "	H. Beardslee,	38
3d " "	F. C. Rathburn,	25
Best pair woolen mittens,	F. C. Rathburn,	50
2d " " "		38

The above are some of the articles that have come under our investigation, and for the prosperity of the Society we would recommend a larger list in future, as many articles were passed over without a premium because the published list did not offer a premium on them.

T. P. GREEN,
A. C. BOTTSFORD,
M. B. MARTIN,
Judges.

CLASS XVI.

Best cowhide boots, B. W. Davis, ... $1 00
Best kip " E. F. Wade, ... 1 00
Best calf " B. W. Davis, ... 1 00
2d " " E. F. Wade, ... 50
Best women's bootees, " 1 00
Best pair slippers, " 50
2d " " Miss M. E. Kimberly, ... 38
Best vest, Miss M. E. Kimberly, ... 50
2d " J. Anderson, ... 38
Best dress coat, J. Anderson, ... 1 00
Best pair pants, " 75
Best calf skin, B. W. Davis, ... 1 00
2d " " French, B. W. Davis, ... Transactions.
Best upper leather, " 75
2d " " " 38
Best straw hat, F. C. Rathburn, ... 38
2d " " " 25

The undersigned recommend a discretionary premium on three morocco skins, as being of excellent quality. We would suggest that this list be made larger the coming year.

T. DEWEY,
J. B. BARNES,
Judges.

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CLASS XVII.

Best bedstead, John Rushtan, ... Rural New Yorker.
2d " John Long, ... Michigan Farmer.
Best Ottoman, " $1 00
Best set chairs, E. H. Jones, ... 1 50
Best set horse shoes, G. W. Babcock, ... 75
Best grained door, Wm. Oatley, ... 1 00
2d " " " 75
Best lot sash, E. Lyman, ... 1 00
2d " " P. S. Lyman, ... 75

Best flour barrel, G. N. Roberts, ... $0 25

E. F. WADE,
J. M. BARDSLEE,
B. F. TOBY,
Judges.

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CLASS XVIII.—NEEDLE, SHELL AND WAX WORK.

Best bed quilt, H. Ruthruff,	$2 00
2d " G. N. Roberts,	1 00
3d " G. W. Smith,	75
Best bed spread, Mrs. C. S. Johnson,	2 00
2d " " C. T. Post,	1 00
Best ottoman cover, Miss E. K. Barnes,	1 75
2d " " Mrs. P. Ellsworth,	1 38
Best embroidered slippers, Miss M. McArthur,	50
2d " " "	38
Best specimen worsted work, Mrs. E. Green,	1 50
2d " " Miss E. Parsons,	1 00
3d " " Miss S. Stewart,	50
Best specimen wax flowers, Miss P. Ellsworth,	1 00
Best specimen worsted flowers, Miss C. Curtis,	1 00
Best port folio, Miss E. K. Barnes,	1 00
Best watch case, worsted, Miss S. Stewart,	38
Best needle book, Mary Stewart,	38
2d " " Miss E. Parsons,	25
Best toilet cushion, Mrs. E. Green,	38
2d " " Mrs. A. Parsons,	25
Best sofa tidies, Miss M. E. Kimberly,	1 00
Best chair tidy, W. G. Smith,	1 50
2d " " L. Castle,	1 25
3d " " Miss S. Stewart,	1 00
Best lace cap, Miss W. G. Smith,	25
Best cake napkin, Miss M. E. Kimberly,	35
2d " " L. Castle,	18
Best specimen netting, G. E. Moore,	25
2d " " Miss S. Stewart,	18

Best counterpane, Mrs. A. Dewey,	$1	50
Best specimen edging, F. C. Rathburn,		25
2d best " "		12
Best embroidered collar, J. M. Fitch,		75
2d best " Miss A. A. Fitch,		50
3d best " " W. G. Smith,		25
Best embroidered handkerchief, Mrs. E. W. Barnes,		75
Best fancy " Miss M. E. Kimberly,		75
2d " " Mrs. E. W. Barnes,		50
Best undersleeves, worked, Miss M. E. Kimberly,	1	00
2d " " Miss A. A. Fitch,		75
Best embroidered cap, Mrs. A. Parsons,		50
2d best " Lucy Clark,		25
Best embroidered cuffs, "		25
Best fairy tree and foliage, Emma Beale,		38
2d " " S. Parsons,		18
Best round bouquet, Ruth Phelps,		50
Best embroidered skirt, Mrs. E. W. Barnes,	1	00
2d best " " W. Calkins,		50
Best embroidered child's skirt, Mrs. E. Brown,		75
2d " " " A. Parsons,		38
Best work box, Mrs. G. Stewart,		50
2d best " Mrs. R. McLaughlin,		25

Many and numerous were the articles in this class, and in many cases but little, if any, difference could be observed by the casual observer.

We would recommend in future that there be more divisions made in the above department, as it is almost impossible for one list of judges to be as particular as it is necessary to discriminate between the merits and demerits of many articles.

REV. O. M. GOODALE,
MRS. E. F. WADE,
Judges.

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CLASS XIX.—PAINTING, DRAWING, &C.

Best monochromatic landscape, Miss E. K. Barnes,	$1	00
2d " Mexican lily, "		75

Best painting, rose buds, Miss E. K. Barnes, ... $1 00
2d " white lily, " 50
Best daguerreotype, Mrs. C. M. Bissell, ... 75
Best mourning peony, J. M. Fitch, ... 75

If there is not genius in the above art, where can it be found, as the above specimens were many of them of the highest order?

R. R. THOMPSON,
Judge.

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CLASS XX.—FLOWERS, BOUQUET AND HOUSE PLANTS.

Best oleander, Miss H. King, ... $1 00
2d " " W. Calkins, ... 75
Best rose geranium, P. S. Lyman, ... 1 00
2d " " " 50
Best dew plant, W. Calkins, ... 50
2d " " E. F. Wade, ... 38
Best cactus, P. S. Lyman, ... 50
Best round bouquet, E. F. Wade, ... 1 00
2d " " " 50
Best lot house plants, P. S. Lyman, ... 2 00
Best Jerusalem cherry, W. Calkins, ... 1 00
2d " " E. F. Wade, ... 50
Best bird cage, decorated, E. C. Moore, ... 1 00
2d " " E. F. Wade, ... 75
Best fuschia, unknown, ... 1 00
2d " P. S. Lyman, ... 75
Best strawberry geranium, C. S. Johnson, ... 50

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CLASS XXI.—MISCELLANEOUS ARTICLES.

Best barrel flour, G. N. Roberts, ... $1 00
Leather work frame, E. K. Barnes, ... 75
One cooking stove, E. C. Moore, ... 1 00
Cistern pump, " 50
Shower bath, " 1 00
Boring machine, " 50

Lot tin ware, E. C. Moore, ... $0 25
Cheese safe, G. W. Stewart, ... 1 00
Bottle currant wine, J. B. Barnes, ... 50
Best show case, E. Green, ... 1 00

L. H. PARSONS,
S. W. COOPER,
Judges.

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CLASS XXII.—FARM IMPLEMENTS.

Best fanning mill, Pettibone & Co., Transactions and $1 00
Best cultivator, E. C. Moore, ... Michigan Farmer.

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CLASS XXIII.—HORSEMANSHIP.

Best single horsemanship in saddle, O. Kenyon, twelve years old, ... Transactions.

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CLASS XXIV.—PLOWING.

Best plowing, Eagle No. 4, R. L. Stewart, Transactions and... $3 00
2d " Curtiss No. 10, M. Ferris, ... 3 00
Best plow workmanship, Eagle No. 4, R. L. Stewart, ... 1 50
2d " " Curtiss No. — " 1 00

H. JOHNSON,
Chairman.

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The whole number of entries made on the 26th and 27th days of September, 1855, were 520, which were as follows:

Horses, 47; cattle, 65; sheep and swine, 14; poultry, 11; fruit, 20; field crops, 39; vegetables, 42; domestic manufactures, 85; needle work, 138; miscellaneous, 20; painting, 12; flowers, 27.

The amount of membership and single tickets sold is $146 27, which, with the help of the county supplies, will pay all of the premiums as soon as presented. A larger number were in attendance this fall than have been since the organization of the society.

Much and good improvement can be seen in the classes of horses and cattle on exhibition since the first fair in the county, which was held in the fall of 1849.

The election of officers will take place at the Court House on the 2d Tuesday of January, A. D. 1856, at 1 o'clock P. M., for the ensuing year.

Members are particularly requested to be in attendance at that time, as well as all others that have an interest in the encouragement of the prosperity of the society. Come one, come all, the Court House is large enough.

By order of the Executive Committee.

P. S. LYMAN,
Secretary.

CORUNNA, Oct. 10, 1855.

ADDRESS

DELIVERED BY THE HON. LUKE H. PARSONS, AT THE SIXTH ANNUAL FAIR OF THE SHIAWASSEE COUNTY AGRICULTURAL SOCIETY.

Mr. President, Ladies and Gentlemen:

It is now over five years since the Shiawassee County Agricultural Society was organized. This is our sixth annual fair. At the time of our organization in 1850, the inhabitants of this county, with a very few exceptions, were laboring under the most severe pecuniary embarrassments; many of them obligated to pay more than they expected to realize as profits of their business, for years to come. At the same time, the liabilities of the county as a body corporate, were not less than $12,000. The money market was so severe, that such a thing as obtaining a loan of any amount, here in the county, was seldom if ever attempted, or even thought of. We had no wool harvest. Cattle, horses, swine, beef, pork, butter, cheese, corn, oats, potatoes, and indeed every kind of farm production but the great staple, was a drug in the market, to be exchanged not for money, but for something which by some other shift or turn, could be used in payment of debts, or traded off for the absolute present necessaries of life. The price of wheat here at home, for a long period, had scarcely averaged fifty cents per

bushel. The credit system had been in full operation, until general distrust prevailed throughout the county; and many, very many, of our inhabitants were actually in a suffering condition; without money, or anything for which money could be obtained; without credit, compelled to work without comfortable habiliments, without spirit, without hope, and often without a healthful allowance of food, which gives physical strength, and with it, ambition and bodily energy and moral courage to endure the laborious work incident to a farmer's life. This is no fancy sketch, or an overwrought picture. It is what many who now hear me, have both seen and experienced. When this association came into existence, the population of the county was scarcely 5,000. At that time, we not only had no market of any value at home, but in consequence of the almost utter impassableness of the public highways, it was the next thing to an impossibility to get to a market abroad; and frequently one-half, if not more, of an entire crop would be used up in time, money and charges, in converting it into cash.

But, fellow-citizens, a brighter day has dawned upon us. In the place of a population of 5,000, we now number over 10,000. The number of acres of improved land in the county during the last five years, has more than tripled. Where, in 1850, stood the majestic forest; where might be seen in clusters the sturdy oak, or in more compact body the beach and maple, the hard hack and the lind, may now be seen beautiful meads, pastures, wheat fields, corn lots and other grounds, luxuriant with every variety of grain, plant and root usual to this climate. Where in the area of nearly twenty-four miles square, could only be found less than half a dozen *independent* farmers, may now be seen hundreds (we were going to say thousands) of as independent agriculturists as are to be found anywhere between the two oceans. Where, in 1850, the hardy pioneers of the then more recently settled portions of the county, were accustomed to wend their lone way in and out of the woods directed in their course only by blazed trees, or the north star, are now to be found passable roads, and here and there all along by the side, are scattered the dwellings of the merry farmer, proud of his country, proud of his situation, boasting of his bountiful crops, and rejoicing in the fair prospect of soon becoming rich and being surrounded with the comforts usually enjoyed by the inhabitants of the older counties.

We do not say that the agricultural society has been the sole cause of this great change. Its influence has been directed in another way, in a different channel; not directly to procuring settlers in the county, but to bringing in a better stock of horses, an improved breed of cattle and sheep, to raising better colts, better calves, better lambs, better wool, better wheat, corn, rye, oats and potatoes, to obtaining better farm implements, and to the general cultivation of the soil, in which there is the most marked change for the better.

These annual gatherings have certainly had a powerful influence in directing the change which has been going on all over the county during the last five years, a thousand times over repaying the farmer, the mechanic and the manufacturer for their time, trouble and expense in sustaining and keeping up these yearly exhibitions of their art and industry. It is to this end that our fairs should be sustained and made interesting; not merely as a great public show, got up to gratify the curiosity, as people would go into the circus or a menagerie, but for the great and ennobling purpose of bringing together in one place, where the whole can be seen and examined at once, all the various improvements which have been made during the past year, so that all can avail themselves of the benefits to be derived from the experience and tried experiments of their more distant as well as near neighbors, without being compelled to travel from house to house, all over the county.

The great object of associations of this kind, to express ourselves in the fewest possible words, should be improvement. Agriculture as a science has for its foundation experience, which should be the basis of every practical operation upon the farm. The farmer learns by experience, if not by his own, by the experience of others, every principle which enters into scientific farming operations. He learns that in order to raise a perfect ear of corn, wheat or rye, he must sow or plant a sound kernel of grain; that it must be placed in a soil carefully prepared by the plow, the hoe, or the drag; that it must be exposed to a proper degree of heat and moisture; that it must have atmospheric air and a proper proportion of oxygen and carbon; that without such air, where there is no oxygen, no grain can ever vegetate and grow; that without carbon a plant can only flower, and cannot bring forth its like in grain; and that without light a plant will certainly perish before it arrives at maturity. These are facts which can be learned by simple

observation founded upon careful experiment, or they may be learned from agricultural books, but without a knowledge of which the farmers would make but slow progress in agricultural improvement, and would hardly be able with the most valuable farm, with thousands of money and means at his command, to make farming a profitable business.

I am aware that there is a very great prejudice existing in the minds of many farmers, against everything which they may be pleased to call scientific or book farming. Because some things which have been published as successful experiments in the agricultural papers have proved a failure when tried under other circumstances, they are ready to exclaim: "Oh! the folly of book learning—our fathers did so and so, and so do we. Go where you will, all over the country, and you can tell one of these farmers by simply passing by his premises, along the public highway. He draws all his water by means of an old fashioned crotch and well pole, uses bars instead of gates between his inclosures, keeps his wagons, carts, plows and drags exposed to the storm and tempest, raises horses, sheep and cattle of the breed of Ins-and-Ins all run out, the little yellow kind of corn, the flesh-colored potatoes, the old-fashioned bald or bearded wheat, fruit all of the common varieties, plants his potatoes, sows his peas, and kills his pork in the moon, and always wonders that his neighbors are so much more successful in their farming operations than he is.

Such men occasionally raise a good crop, because their own experience helps them to distinguish between right and wrong a part of the time, and when they fail in their calculations, they call it bad luck without even stopping to inquire the reason, or imagining they can benefit themselves by studying out the cause of their failure. In nine cases out of ten, when a man raises a poor crop, it is the result of bad farming. In this State the present year there are very few poor crops except in the article of corn. We presume most of those who raise a poor crop of this article will lay it wholly to the season. But we have proof conclusive that this will be a false charge if made. We have traveled over considerable of the State, and we found good corn growing upon every variety of soil, from the stiffest clay to the lightest sand, while we found the poorer crops growing only across the way and right along side of the best ones, the corn of one man as stout as

it could grow, and the corn of his next neighbor, upon the same kind of soil by nature, hardly worth the harvesting. It may be asked what made this difference in the two crops growing side by side. The answer is obvious. One man, who had learned something from books and agricultural papers, drew an abundance of manure upon his land, plowed it up deep, made it mellow, planted it in the right time, kept out the weeds when it came up, and the result was, his corn grew right along, for it could not help it. The other man, opposed to book farming, thought manure was of no use, plowed over the top of his ground, and dragged it perhaps in the rain, planted it in the mud, slightly hoed it once; the corn got stuck on its way coming out of the ground, and has been stuck ever since, and the result, as might be expected, is, the man has not a crop worth the raising.

How was it that the Hon. Jesse Buel, a notorious book farmer, succeeded in making one of the best farms in the State of New York out of some pine barren lands, which for more than a century had been abandoned as entirely worthless? He went to work in the first place, and analyzed the soil, found out exactly what ingredients were necessary to make it productive, he plowed his land deep, he enriched it by the best manure, added to it the elements wanting, such as lime and carbon, enclosed it with good fences, introduced the system of rotation of crops, and in a very short period he had made out of these worthless barrens a model farm, to the wonder and astonishment of thousands who had laughed at the undertaking as the chimera of a diseased brain, the working of a fantastical imagination. The farm of Mr. Buel, in his life time, was not only a model one, where its illustrious occupant for the benefit of mankind made countless experiments in the science of agriculture, and gave them, without charge, to the world, as the fruit of his most glorious and philanthropic undertaking, but it was a farm of profit, justly regarded as scarcely equalled for its productiveness by any farm upon the continent.

Mr. Buel's operations were not confined to making his soil productive. He was deeply engaged in raising the improved breeds of horses, cattle, sheep and swine, and of sending out into the country every kind of choice seeds then to be found anywhere in the States. Mr. Buel was by profession, if we mistake not, a printer. The early part of his life was devoted to the publication of a weekly newspaper. His farming

operations were an after consideration, and the secret of his success consisted in the fact, that he regarded agricultural knowledge as science to be derived from books as well as from actual experiment, and the experience of others. He provided himself with agricultural works of every description, and studied to make himself familiar with every branch of knowledge pertaining to a successful application of the science of his new profession. What he succeeded in accomplishing others may do. It is not of half the consequence that your farm is possessed of a naturally rich and productive soil, as it is that you know how to cultivate that soil, and make it produce. How many of us have noticed farms with the best of soils completely run down by half cultivation, before they had half paid for their own clearing and fencing; and how often have we seen such farms, on changing owners, brought to in the short space of one or two years? Half or careless cultivation is worse for land than running it without manuring. Skimming land over on the top with shallow plowing, leaving a spot around every stump to grow up to grass, letting the corners of the fences decorate themselves with elders, briar-bushes, popples, and other ill-shaped shrubbery—in short, let a farm grow up to weeds and foul stuff, and you may know that the occupants of such a farm cannot belong to the class of thrifty farmers; he is not only spoiling the reputation of his farm, but is destroying its productiveness, and laying the foundation of a seven years' job to some future owner to bring it under a proper state of cultivation. A crop of weeds does more to reduce the strength of land than a crop of corn or oats, and he who supposes that he can succeed as a thrifty farmer, by half fencing, half plowing, half dragging and half hoeing, will most assuredly, when perhaps it is too late, find himself mistaken.

Farmers of Shiawassee, we have come together on this occasion for mutual benefit and improvement. Let us stop and ask ourselves what is really the secret of successful farming.

Is it hard labor? Look around and see how many labor almost constantly, night as well as day, and yet fail. Is it a large farm? How many cultivate their hundreds of acres and the more they cultivate the worse they are off. It is just as easy to do too much as it is to do too little. Labor, to accomplish the desired object, must be

properly directed; must be laid out in the proper time and in such a manner as to do the most good. Cultivate a field ever so well, and plant it to corn or sow it to wheat, and what does it amount to if the soil is not adapted to the growth of the crop? Wheat sown upon land where it is sure to be drowned out by the water, is bestowing labor to be lost, and there are thousands of acres sown in this very way. Corn planted on a stiff clayey soil in the mud had better be left in the crib, and it is so with every ill-directed effort to raise a crop of any kind of grain. In farming operations especially what is not done in the season for doing it might often better not be done at all. We often hear a farmer say, as an excuse for his poor, feeble looking field of corn, that he was obliged to plow the land when it was wet, and it has baked so hard that the corn don't do well. This is no excuse. Plowing land when it is wet not only spoils it for the present crop but for many crops to come, and this is a fact which every farmer ought to know, for it has been established by the experience of every man who has tried the experiment. Some farmers in the winter, leave everything to be done in the summer, and the consequence is, when summer comes, they are always working themselves to death, are always behind hand, always in a hurry, always fretting, and never doing anything when it should be done. Winter is the season when farmers can do most of their shopping, can see that their plows, drags, hoes and all their farming implements are repaired, can draw their fire wood, fit it for the fire and put it under shelter, in short when they can do almost everything upon the farm but plowing, sowing, hoeing, reaping and mowing. If their winter chores are well done up, over half of the labor for the summer is disposed of, and twice the amount with the same number of hands can be accomplished in the season of cropping, that can be where everything is left to be done in this busy time.

Some farmers are constantly losing a large share which they annually raise by means of poor fences and unruly cattle. You can never make them believe that a seven rail fence is easily, in the time of it, made an eight rail fence, and that the top rail is the one that saves the crop, and keeps the cattle, as they should be, orderly. Some farmers never stop to put up a panel that has blown or fallen down, and are always wondering where the hogs got into the corn. Another farmer, when he buys an ox or a cow, will surely buy an unruly one,

because he can get it cheap, and the result is, he loses annually more in the destruction of property by the animal than the price of an orderly one. We would say to every farmer, if you have a poor fence, either tear it down or make it a good one. If you have an unruly ox, convert it into beef—don't keep it to destroy your own crops, nor sell it to cheat an unsuspecting neighbor. Poor fences and unruly cattle are the most unprofitable things a man can keep upon a farm. For keeping the one or harboring the other, there is no excuse, and the farmer who does it, is not only constantly losing his own crops, but is sure to have difficulty with his neighbors.

To be brief, in summing up some of the rules which should govern a farmer if he intends to be successful, we would glance at the following: Never undertake to do too much—better farm it well upon a small scale, than poorly upon a large one. There is more profit in raising two hundred bushels of wheat from ten acres, than there is in raising a thousand from a hundred acres; there is more profit in making a ton of pork from five hogs than there is in making two tons from twenty hogs. Better raise five hundred bushels of corn from ten acres than a thousand from forty. It is better to raise forty tons of hay from twenty acres than a hundred tons from a hundred acres. And so of every kind of agricultural operation the profit is not in the number of bushels or acres sown, but in the increased or superior yield of the crop, not in the number of animals fattened, but in the extra pounds of meat made from a given quantity of feed.

It is as easy to raise a Durham, or Devon, or an Ayrshire cow worth fifty dollars, as it is to raise a good common one worth but twenty dollars, and it costs no more to raise a high blooded colt worth $100 than it does to raise a dunghill animal worth $50, while this extra value may be the only real profit you gain in the expenditure of raising the beast. If a farmer can just save himself by raising a coarse article of wool at twenty-five cents per pound, his next neighbor who raises 1,000 pounds of fine clip and sells it at three shillings, makes a clear profit of $125. The same rule applies to the sowing and planting of choice seed. It is well known that while one kind of corn will grow but thirty bushels per acre, another kind, upon the same kind of soil, with the same treatment, in the same season, would grow fifty; and who does not see that the twenty extra bushels raised from the

choice seed must be a clean profit over and above all that is realized from planting the inferior kind? What is true of corn is true of wheat, of oats, of potatoes, and of every other crop. Farmers as well as mechanics, should have a particular place for every tool they use, and when they have used it, make it an invariable rule to put it back in its place, recollecting that every moment spent in looking up a lost instrument is time thrown away as well as vexation, disappointment, and sometimes feelings of anguish indescribable. "A place for every thing, and every thing in its place," is a saving of thousands in time, and time is money. It is a saving of the temper, of a great deal of fault-finding and scolding, and a certain saving of the article which otherwise might be lost.

From the rules which we have already laid down, (and we might enumerate many more,) it may easily be discovered why one farmer succeeds in making money while his neighbor is always poor, always in want, always wondering at the hardness of his lot, always grumbling at the common dispensations of Divine Providence. It may, also, as easily be perceived how every man is the author of his own success, his own prosperity, his own failure, his own adversity. It is all nonsense to talk about fatality, as though one man was born to be rich, while another man was certain to be poor.

We care not where the young man is, nor who he is, with ordinary abilities, if he will buy him a farm, go to work upon it with the determination of being a good farmer, do everything well and in its proper time, plant and sow nothing but good seed, always raise good cattle, sheep and horses, always make good pork and observe order in taking care of his tools, save everything he raises and let nothing run to waste, and it will be but a very few years before such a young man will be independent. On the contrary, let a young man commence an agricultural life without any settled rules, do everything at the halves and just when it happens, pay no regard to the kind of stock he raises, or the seed he sows, lay every tool where he uses it or where it is most convenient to let it drop, take care of nothing and waste everything, and it is impossible in the nature of things, no matter how hard he may labor, for such a man to be otherwise than poverty-stricken, and that continually.

Fellow citizens! in our remarks thus far, we have made no effort at a display of oratory or rhetoric. We have intended only to be practical—

to offer you suggestions from which, if you would take them friendly, you might profit. We have, from the organization of this society, felt a deep interest in the prospect of its individual numbers. We came into this county at an early day, when its population was less than 5,000, when in this northern part there were less than 100 voters, when we had no roads, and when money in the country was about as scarce as were its inhabitants. We have watched the improvements which have been going on for fifteen long years, and we certainly rejoice that on this occasion we can congratulate you upon the degree of prosperity to which you have attained. The times of selling wheat at 44 cents per bushel to pay store debts have gone by. Carting wheat or flour to Pontiac and bringing back our merchandise in the same way is a business which will soon be brought to a close. The Detroit and Milwaukee Railway is sending a train of cars nearer and nearer to us every day, and in a few short weeks, at the longest, we who are now here assembled, may again meet, not to behold a display of horses and cattle, but to witness the first approach of the iron horse wending its lightning way into the rich valley of the Shiawassee.

Yes, fellow-citizens, we who have so long been pent up in this wilderness country, will very soon hear the railroad whistle coming in both from the east and west, and from the railroad depot here in this so long forsaken valley, may we take passage on board the magnificent car, and travel, by the power of steam, to the copper regions of the north, the lead mines of the west, the cotton plantations of the south, to the fatherlands of the east, to almost any and every portion of this vast republic. Before we meet again, the complaint that "it costs so much to get our produce to market" will be ended. The time and money heretofore expended in this way, can then be devoted to some other object.

In conclusion may I not suggest that the farmers of Shiawassee can now afford to make some expenditure in adorning their building grounds with shrubbery, and other ornamental trees. By many in the country this outlay has already been made, but by others, amid the cares and anxiety incident to settling in a new country, it has been entirely overlooked. What is better calculated to make one's home agreeable and pleasant, than to have the yard and outgrounds beautifully adorned with here and there the majestic oak, the sugar-maple,

the towering elm, the mountain ash, the hickory, the butternut, the weeping-willow, the locust, the balm of gilead, the evergreen pine, the hemlock, the spruce and the balsam of fir, not forgetting the ordinary house and garden shrubbery and the lady's beautiful flower garden, decorated with the peony, the moss, the grass and carnation pink, the beautiful rose, and the thousand other varieties of variegated, blooming flowers, of which the ladies are so fond, and take so much pains to cultivate. Say what you may, this is no useless expenditure. We would rather live in the shady grove, or in the thick dark forest, where we could occasionally pluck a wild blossom, than to dwell in the open fields away from every variety of tree, shrub, plant and flower. These outlays are easily made. A short time each spring and fall, for two or three years, devoted thus to decorating your building grounds, would add thousands to the appearance of your homesteads and immensely to the daily enjoyment of yourselves and your families. It is all well that a large share of your time and your means is devoted to the ordinary operations upon the farm, but you have something else to do besides making money. At least a portion of it should be expended to make comfortable your houses and barns; to beautify your yards, to adorn your streets, to educate your children, and to promote a good state of society in the immediate vicinity in which you reside. Without these, of what value are houses and lands or anything else of which you may be possessed? Men live not simply to make money and become rich. If this were so, we should look for none but a world of misers, the most cold-hearted, selfish, and loathsome set of beings in the universe, the fallen spirits in the regions of darkness hardly excepted. We live to enjoy life as we go along, not to idle away our time or to devote our moments to useless expenditure, but to make ourselves and families comfortable, contented and happy.

As farmers, mechanics and manufacturers, the education of our children should not be neglected. We may bequeath to our children money, we may leave to them our houses and lands; and, to use a figurative expression, these may all take wings and fly away. Of these, by fraud or some other means, they may be robbed. But if we give them an education, we give them what is sure to be of value to them, and what they can never be dispossessed of. We would say, by all means, so far as your sons are concerned, educate them farmers. Don't

try to make a doctor, a lawyer or a minister of any of them. If you have got a son that don't know enough to be a farmer, doubtless he will find it out in due time himself, and will pursue some other means of obtaining a livelihood. The reason why so many farmers' sons refuse to follow the pursuit of their fathers, is because they are educated in exactly the right way to make them disrelish it. If the father would teach his sons the nature of the different kinds of soils; instruct them in the art of analyzing those soils, and in the qualities necessary to the growth and production of the various kinds of grasses, grains and vegetables; would teach them to apply their scholastic knowledge to the business operations upon the farm, would give them agricultural books and papers to read, from which they could learn all about the nature of the different kinds of diseases of horses, cattle, sheep and swine, and the manner of curing those diseases; in short, if fathers would study to make their sons interested in all their farming operations, and would make their homes as they should be, comfortable, agreeable, and pleasant, very few, if any, would be willing to exchange the pursuit in which they had been so thoroughly educated in early life, for the uncertain chance of gaining distinction or wealth in some occupation they are yet compelled in toto to learn.

As a proof positive of the superiority of the advantages of a farmer's life over that of all others, we would mention the fact, that within the last few years thousands in every direction, in every part of the country, have abandoned mercantile, manufacturing and professional life, and are now engaged with all their means and all their energies in the pursuit of agriculture, proud of their calling, happy in their new vocation and merrily singing as they go forth about their daily avocations,

The farmer's life is the life for me,
I own I love it dearly,
And every season full of glee
I take its labor cheerily;
To plow or sow, to reap or mow,
Or in the barn to thresh, Sir;
All's one to me, I plainly see,
'Twill bring me health and cash, Sir.

ST. JOSEPH COUNTY.

REPORT OF THE ST. JOSEPH COUNTY AGRICULTURAL SOCIETY, FOR THE YEAR 1855.

On the 27th day of March, 1855, the St. Joseph County Agricultural Society met at the Court House in the village of Centreville, pursuant to notice, for the purpose of electing officers and transacting such other business as should properly come before the Society. In absence of the President, J. Redway, Vice President, was called to the chair. The constitution of the Society was then read, after which the following business was transacted.

On motion,

The Treasurer was requested to give a statement of receipts and expenditures during the past year. Whereupon, the Treasurer, W. McCormick, produced the following statement:

Wm. McCormick, in account with St. Joseph County Agricultural Society.

	Dr.	*Cr.*
To cash on hand,	$ 8 50	
" received for tickets,	58 50	
" received from County Treasurer,	411 09	
By cash paid C. Foreman,		$ 1 42
" T. F. Bouton,		3 00
" L. T. Hull,		8 00
" premiums,		312 00
By balance in treasury,		153 67
	$478 09	$478 09

Which statement was accepted.

The committee for purchasing the fair ground, at the request of the Society, then offered the following report:

To the St. Joseph County Agricultural Society:

We, the committee appointed by the Executive Committee of said Society for the purpose of locating and purchasing a site for a fair ground for said Society, respectfully report that we have purchased 17 50-160ths acres of ground of George Talbot, adjoining the village of Centreville on the east, at the price of $50 per acre, amounting to $866 56; on which we have paid the sum of $266 56; which was $112 89 over and above the amount reported on hand by your Treasurer, which amount, $112 89, was also drawn from unappropriated funds in the Treasurer's hands.

All of which we respectfully present.

C. H. STARR,
WM. McCORMICK,
JOEL REDWAY.

March 27, 1855.

The report was accepted, after which the following resolution was passed:

Resolved, That this Society adopt this report, and that it does confirm the contract for 17 53-160ths acres of land, instead of 20 acres which the committee was instructed to purchase.

Article 8 of the constitution of this Society was then altered so as to read as follows:

ART. 8. The annual meeting of this Society shall be held on the first Tuesday of February.

After which, the Society elected the following officers to serve the following year, by ballot: S. C. Coffinbury, President; L. C. Laird, Vice President; Cyrus Foreman, Recording Secretary; C. H. Starr, Corresponding Secretary; Wm. McCormick, Treasurer, and the following managers *viva voce:* Joseph Horton, Benj. Perrin, J. L. Bishop, Elisha Millard, and Wm. C. Bryant.

The following resolution was then adopted:

Resolved, That the Treasurer be and he is hereby authorized to disburse uncurrent funds in his hands, at their highest price, when called upon by the proper vouchers, provided that there are no other funds in the treasury.

Adjourned.

On the 7th day of March, 1855, the Executive Committee met at the Court House in Centreville, Mr. Coffinbury in the chair.

On motion,

C. H. Starr was chosen a committee of one to look after and secure the lumber that remains on the fair ground, and to present his bill for such services to the Treasurer, and the Treasurer is authorized to pay a reasonable bill for the service.

S. F. Goss, Cyrus Foreman and Wm. Laffay, were appointed a building committee, and are hereby instructed to contract, without delay, with some suitable person or persons to complete the building on the fair ground within the shortest possible period, and that they also proceed to fence the fair ground.

On motion,

Resolved, That Milo Powell, Esq., of Cass county, be and he is hereby appointed an honorary member of this Society, with the privilege of competing for premiums on an equal footing with other members, a part of his farm lying in this county, and he residing on or near the line between this and Cass county.

C. H. Starr and Joseph Horton were appointed to draw up a premium list to be presented at next meeting.

Adjourned until May 19, 1855.

CYRUS FOREMAN,
Secretary.

—

MAY 19, 1855.

The Executive Committee met pursuant to adjournment, and adjourned to the 1st day of June next.

CYRUS FOREMAN,
Secretary.

—

JUNE 1st, 1855.

Executive Committee met pursuant to adjournment, but there not being enough present to transact business, adjourned without date.

CYRUS FOREMAN,
Secretary.

On the 16th day of June the Executive Committee met at the Court House, and allowed H. C. Campbell $2 for services, assisting the Secretary in 1854, after which a list of premiums was adopted for the next annual fair, the time of holding which is hereby fixed on the 10th and 11th days of October next.

ANNUAL FAIR OF 1855.

On the 10th and 11th days of October, 1855, the annual fair was held on the fair ground in the village of Centreville, at which the number of entries of all the important articles was as follows:

Farms,		3
Horses,		54
Cattle—Durhams,	16	
Devons,	11	
Cross,	17	
Natives,	14	
		— 58
Sheep,		10
Hogs,		3
Poultry,		11
Farm produce,		15
Garden produce,		20
Fruit,		25
Fancy work,		23
Mechanical work,		21
Cloth,		8
Thread and knitting,		19
Home products,		15
Plowing,		4
Miscellaneous,		32

On the afternoon of the eleventh, the meeting was addressed by Henry F. Steele and C. Betts, Esqs., after which the following premiums were announced to have been awarded, and the meeting adjourned:

LIST OF PREMIUMS

Awarded at the 5th annual fair of the St. Joseph County Agricultural Society:

FARMS.

Best opening farm, 1st premium, Silas Cady,	$4 00
2d best " W. P. Thurston,	3 00

HORSES.

Best stallion 3 years old or over, Hollis Howes,	$4 00
2d " 3 " A. Blanchard,	3 00
Best brood mare, P. C. Lown,	3 00
2d best " James Hay,	2 00
Best horse 2 years old, M. P. Thurston,	2 00
2d " 2 " P. C. Lown,	1 00
Best horse 1 year old, M. H. Wakeman,	2 00
2d " 1 " S. N. Clement,	1 00
Best mare 2 years old, J. R. Howard,	1 50
2d " 2 " Wm. B. Langley,	1 00
Best sucking colt, Jonas Fisher,	1 00
2d best " Alfred Todd,	75
Best pair matched horses, John Hate,	3 00
2d " " Thomas N. McKinney,	2 00
Best pair horses for all work, Robert Estes,	4 00
2d " " Wilson Cady,	2 00
Best single horse, Oscar Briggs,	2 00
2d best " S. F. Goss,	2 00
Best 2 years old gelding, A. C. Chafy,	2 00

CATTLE—DURHAMS.

2d best bull 3 years old or over, Wm. Hagerman,	$3 00
Best bull 1 year old, A. Harvey,	2 00
2d " 1 " P. F. Putnam,	1 00
Best cow 3 years old, Milo Powell,	3 00
2d " 3 " P. C. Lown,	2 00
Best bull calf, M. H. Wakeman,	50
Best heifer calf, "	50

YEARLING BULL.—This animal has many excellent points, with some defects. He has a fine muzzle and a very good eye. His quarters are broad and straight, and limbs clean and good. His chief defect is a hollow back. The committee award him the first premium, as the best in his class.

No. 14, Heifer 3 Years Old.—Aside from a coarseness of limb and coat, and a slight sloping of the rump, there can be no objection to this heifer as a fine specimen of the breed. Fine muzzle, fine neck and brisket, straight back, a very good handler, with good color, she will, without doubt, be the source of some excellent stock. The committee would respectfully suggest to breeders the great importance of producing animals of fine limb. The remarkable *coarseness* of limb of all the animals in this class on exhibition, induces the committee to make the suggestion.

DEVONS.

Best bull 3 years old or over, R. Dougherty,	$4 00
2d " 3 " Adam Bower,	3 00
Best bull 1 year old, C. Betts,	2 00
2d best bull 1 " S. Perkins,	1 00
Best cow 3 years old, D. H. Orton,	3 00
2d " 3 " C. Betts,	2 00
Best heifer 1 year old, C. Betts,	1 00
Best calf, C. Betts,	1 00

NATIVES AND BLOODS.

Best bull 3 years old, Silas Cady,	$4 00
2d " 3 " " Gilbert Liddle,	3 00
Best bull 1 year old, Samuel Frankish,	2 00
Best cow 3 years old, Milo Powell,	3 00
2d " 3 " Aaron Hagenbuck,	2 00
Best 2 year old heifer, Aaron Hagenbuck,	2 00
Best 1 " James W. Jackson,	1 00
Best calf, Aaron Hagenbuck,	1 00

NATIVES.

Best pair work oxen 4 years old or over, Adam Bower,	$4 00
2d best " 4 " " Dan. Vanness,	3 00
Best pair steers 3 years old or over, C. S. Wheeler,	3 00
2d best " 3 " " Geo. Hebron,	2 00
Best pair steers 2 years old, M. W. Dimick,	2 00
Best cow 4 years old, V. Patchin,	2 00
2d " 4 " Wm. Hagerman,	1 00

Best calf under 2 years old, James W. Jackson,..... $1 00
2d best " 2 " Wm. Hagerman,..... 50

SHEEP.—CROSS OF SPANISH AND FRENCH.

Best buck 1 year old, Samuel Frankish,..... $2 00
2d " 1 " Richard Dougherty,..... 2 00
Best 4 ewes 2 years old, Jos. Horton,..... 3 00
Best 4 lambs under 1 year old, Jos. Horton,..... 3 00

SPANISH MERINO.

Best buck 2 years old or over, Jacob Vanness,..... $3 00
Best buck 1 year old, M. W. Dimick,..... 2 00

FRENCH MERINO.

Best buck 2 years old or over, Richard Dougherty,..... $3 00

HOGS.—GRASS BREED.

Best sow, S. Perkins,..... $2 00

BYFIELD.

Best boar, P. F. Putnam,..... $2 00
Best sow, " 2 00

POULTRY.

Best pair Shanghais, M. W. Dimick,..... $0 50
2d best " Joseph Horton,..... 25
Best pair Cochins, Joseph Horton,..... 50
2d best " M. W. Dimick,..... 25
Best pair pea fowls, M. W. Dimick,..... 50
" Brahmas, Joseph Horton,..... 50
2d " " M. W. Dimick,..... 25
Best pair turkeys, M. W. Dimick,..... 50
Best collection of fowls, Joseph Horton,..... 50

FARM PRODUCE.

Best ½ bushel wheat raised this year, Morris P. Arnold..... $1 00
Best ½ bushel grass seed, J. S. Weeks,..... 50
Best acre corn, 115 bushels, Wm. Conner, (premium donated to the Society,)..... 3 00
Best ½ bushel oats raised this year, Samuel Frankish,..... 50
Best ½ bushel barley, Samuel Frankish,..... 50

Best 12 ears of corn, Wm. Langley, ... $0 50

FRUIT.

Best 20 varieties of apples, not less than 3 of each variety, J. F. Ulrich, ... $1 00
2d best 20 varieties of apples, not less than three of each variety, Samuel Frankish, ... 75
Best half bushel of apples, John McKie, ... 1 00
2d best " " J. F. Ulrich, ... 75
Best half bushel of peaches, R. Matthews, ... 1 00
2d best " " J. M. Leland, ... 50
Best variety of pears, V. Patchin, ... 75
2d best " A. J. Kinne, ... 50
Best variety quinces, John Bennett, ... 75
" grapes, C. H. Thoms, ... 75
2d " " V. Patchin, ... 50

GARDEN PRODUCE.

Best 10 sweet potatoes, Wm. Conner, ... $0 50
Best carrots, Allen Tinnison, ... 50
Best 4 heads cabbage, Allen Tinnison, ... 50
Best half bushel potatoes, G. W. Osborn, ... 50
" white turnips, A. Tinnison, ... 50
Best 4 squashes, Wm. Masser, ... 25
Best 10 beets, T. N. Clement, ... 50
Best half bushel onions, John Grennell, ... 50
" ruta bagas, Wm. Hagerman, ... 50

FANCY WORK.

Best variety of paper flowers, M. A. Stone, ... $0 50
" of wax flowers, S. Westlake, ... 75
Best bouquet, Miss M. A. Cady, ... 50
Best cotton, silk, or linen, Mrs. C. Bradley, ... 50
2d " " Sarah Westlake, ... 25
Best oil painting, S. C. Coffinbury, ... 1 00
2d best oil painting, " 50
Leather trimmed book case, E. Uptegrove, ... 50
Hair wreath, Elizabeth McCormick, ... 50
Leather worked picture frame, Miss A. C. Royce, ... 50

MECHANICAL WORKS.

Best lumber wagon, M. W. Dimick,	$2 00
Best double harness, H. Cady,	2 00
2d best " Wilson Cady,	1 00
Best single harness, Talbot & Dressler,	1 00
Best pair calf boots, Wm. Esterbrook,	1 00
Best covered buggy, N. Harvey & Co.,	2 00
2d best " "	1 00
Best open buggy, "	2 00
Best plow, Joseph Hasbrouck,	1 00
2d " Allen Richards,	50

CLOTH.

Best woolen coverlet, Mrs. M. L. Ketchum,	$1 00
Best 10 yards linen cloth, "	75
Best 10 yards flannel, Joel Redway,	75
Best 10 yards woolen carpet, Joel Redway,	1 50
Best 10 yards woolen cloth, "	1 00
Best pair woolen sheets, Mrs. M. L. Ketchum,	50
2d " " Mrs. Wm. Major,	25

THREAD AND KNITTING.

Best 10 yards rag carpet, Jane Reed,	$1 00
2d best 10 " Mrs. Jacob Morrison,	50
Best hank woolen yarn, Mrs. Wm. Major,	50
2d " " Mrs. M. L. Ketchum,	25
Best pair woolen stockings, Mrs. M. L. Ketchum,	25
Best patch quilt, Minerva Brown,	1 00
2d best " Julia A. Cady,	50
Best bonnet, John Macguire,	1 00
Embroidered apron, M. A. Cady,	50

HOME PRODUCTS.

Best 10 lbs. honey comb, James Hay,	$1 00
2d best 10 lbs. " Samuel Chipman,	50
Best loaf bread, Rachael McCormick, (premium donated to the Society,)	1 00
2d best loaf bread, John McKie,	50

Best 10 lbs. cheese, Mrs. M. L. Ketchum,	$1 00
2d best 10 " Moses Taft,	50
Best 10 lbs. butter, Mrs. J. VanNess,	1 00
2d best 10 " Mrs. M. L. Ketchum,	50

PLOWING.

First premium, John Pushby,	$3 00
2d " Allen Tennison,	2 00

DISCRETIONARY.

Bedstead, J. R. Belote, (premium donated to the Society,)	$0 50
Work stand, J. R. Belote,	50
5 watermelons, I. F. Ulrich,	25
Sofa, A. Bristol,	1 50
8 chairs, A. Bristol, amount not stated.	
Embroidery on flannel, Mary Palmer,	50
Berage dress, Sarah DeMott,	50
Child's dress, "	50
Knit tidy, "	25
Pair ottomans, Robert McKinly,	25
Crochet shawl, Margaret Green,	25
2 crochet tidies, "	25
Cider mills, J. M. Leland, not fixed.	
Silk dress, Mrs. Giles Doxdater,	75
" "	50
Cider mill, Allen Richards, not fixed.	
6 ears flour corn, G. W. Osborn,	25
Tin and copper furniture for cook stove, John K. Briggs,	50
Parlor stove, John K. Briggs,	50
" "	1 00
" "	50
Double covered carriage, H. Cady,	2 00
Pitch fork, Wm. Bradly,	50
Potato digger, "	50
Veneering hammer, M. Southwick,	50
Dress frock coat, John H. McGuire,	1 00
Dress coat, "	1 00
Pair pants, "	50

Vest, John H. McGuire,..... $0 50
Over coat, John H. McGuire,..... 1 00

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NOVEMBER 26, 1855.

The Executive Committee of the St. Joseph County Agricultural Society met at the Court House, and allowed Samuel F. Goss, the sum of four hundred dollars and thirteen cents, for labor and materials furnished for the fair building, and allowed Martin Emmons the sum of eighty-four dollars and twenty-seven cents, for labor done on the fair building.

Adjourned.

CYRUS FOREMAN.
Secretary.

SAGINAW COUNTY.

The following paper was prepared by the editor of the Saginaw Enterprise:

STATISTICS AND GENERAL INFORMATION IN RELATION TO THE SAGINAW LUMBER BUSINESS.

GENERAL REMARKS.

Within the past five or six years, the lumber business of the Saginaw river and its tributaries has been developed until it has reached an extent and importance of which those not acquainted with this region of Michigan could scarcely dream; and yet the vast pineries which skirt the banks of these streams, or wave in majestic grandeur upon the table lands between them, have as yet but slightly felt the invasion. There are yet thousands of acres of excellent pine lands that the woodman's axe has never disturbed. Year after year the lumbermen have extended their operations, and yet, so far from any scarcity being felt, they continue to make more extensive preparations for the future. The last season several large mills were erected, in which an additional capital of many thousands of dollars was invested, and probably more will yet be built. The most that has yet been done by way of using up the pineries has been to cut the best timber from a portion of the lands within a mile or a mile and a half from the banks of the rivers. Even within this distance there is yet much untouched, and beyond it, are vast recesses of the staple timber, which the lumbermen will continue to penetrate farther and farther for years to come.

For the benefit of readers abroad it may be interesting to give a sketch of the

MODE OF OPERATIONS.

About the commencement of winter, teams, provisions, and men, are

secured for the winter's operations. These expeditions are usually fitted out from one or the other of the three principal towns on the Saginaw river. The work is conducted under the supervision of some one experienced in the business. The companies proceed to the pineries, 20 to 60 miles from East Saginaw or Saginaw City, building their shanties and forming "camps" in the immediate vicinity of the timber, usually within a mile or a mile and a half of the bank of one of the rivers. A winter of good sleighing, with snow not too deep, is considered most favorable for their operations. The trees are cut down, sawed up into logs of the suitable length, and drawn to the bank of the river, the owner's name usually branded upon the end of each log. During the spring freshets these logs are rolled into the stream, formed into rafts, and fastened with ropes sufficient to keep them together. They are then floated down to the mills, conducted into "booms," from which they are drawn into the mills by machinery, and rapidly cut up into the various kinds of lumber. During most of the summer season, forty to fifty steam engines, some of them large and powerful, are giving the strength of their iron arms to the machinery that severs the solid timber; and from 200 to 300 saws are constantly in motion through the day, and most of them day and night. Workmen in the mills get from $1 to $2 50 per day, (in some instances more,) according to experience and ability.

There are the present winter 113 camps on the river and its tributaries, which will average 16 men and 6 teams to a camp. This would give a grand total of 1,808 men and 678 teams employed. The present winter has been very favorable for lumbering, and it is estimated, if the weather continues favorable a few days longer, there will be logs enough cut and "banked" for 100,000,000 feet of lumber. We are informed that the amount now banked daily, will amount to 2,500,000 feet. It will be seen at once that such a body of men and teams require large supplies of provisions, and furnish a home market for the products of the adjacent farming country.

The 113 camps now in the woods will require, on an average, 14 barrels of flour and 12 barrels of pork each during the winter, making in all 1,682 barrels of flour, and 1,356 of pork. Each camp will also require, on an average, 3 bushels of corn or corn meal per day—225 bushels for 75 days—and for the whole 113 camps, a total of 8,475

bushels. Hay, say 15 tons per camp, or 1,685 tons in all. The men employed get average wages of about $17 per month, and the teams (with teamsters) $30 to $35.

We have experienced some difficulty in obtaining these statistics, and some of them are based upon the estimates of those best able to judge. A number of the proprietors or superintendents of the mills have not furnished us the desired information, and we have been obliged to take the next best authority. It is believed, however, that the aggregate will not vary much from a correct statement.

The statements are designed to embrace the Saginaw valley, or that portion of it which finds an outlet through the Saginaw river. The mills at Flint, Flushing, &c., are not included, because their products mostly find a market in the farming region south.

There is an almost unlimited demand for lumber, and the Saginaw lumber ranks among the best in quality, and commands the highest prices in the markets of Chicago, Cleveland, Buffalo, Albany, &c. By far the greatest portion goes to Chicago. During the season of navigation, the business of lumber transportation is important. The mills are nearly all situated upon the banks of the rivers, and (with the exception of those above the head of navigation) the lumber is taken directly from the mills upon the vessels or "lighters." The products of the mills above are rafted down to Lower Saginaw, and probably three-fourths of all the shipments of lumber are made from the latter place, and nearly or quite half of the whole amount manufactured on the river is made there.

TABULAR STATEMENT

Showing amount of lumber sawed on Saginaw River and branches during the past season, 1855; also, number of saws run, and number of men employed:

EAST SAGINAW.

Mills and Proprietors.	Lumber Cut.	Lath.	Saws.	Men.
Emerson Mill, Durfee & Atwater,	2,500,000	500,000	4	22
Durfee & Atwater's new mill	3,500,000	800,000	4	24
J. T. Copeland's mill, (run part season.)	800,000		2	10
Wm. Gallagher's mill, new, "	250,000		1	4

L. C. Whiting's mill, Whiting & Garrison,	2,250,000	700,000	6	10
Detroit mill, T. Whitney,	1,536,287	------	2	12
Pierson mill, (west side,) C. C. Gilman, lessee,	1,800,000	------	5	12
Chicago mill, (west side,) T. Whitney,	2,315,754	1,227,500	3	22
SAGINAW CITY.				
Payne, Kendall & Co.	1,783,071	177,000	3	15
Gang mill, Wilking's & Co.,	4,000,000	500,000	53	35
Millard & Sweet's mill,	2,700,000	600,000	4	18
LOWER SAGINAW.				
McEwen & Bro.'s mill,	2,900,000	1,000,000	6	16
Watrous, Southworth & Co., (Portsmouth,)	2,000,000	------	4	9
Bangor mills, V. A. Ripley,	5,000,000	2,500,000	6	26
Drake mill, "	3,500,000	1,675,000	6	45
Moore, Vorce & Co.,	3,200,000	------	6	20
W. P. Doty's mill,	3,373,000	1,464,000	6	17
Dunlap mill, T. Whitney,	1,307,002	225,700	3	12
J. & B. Bird's mill, (Portsmouth,)	1,800,000	------	3	12
13 other mills, from which no report received, but estimated to average 1,800,000 feet lumber cut, with 4 saws and 10 men each,	23,400,000	13,000,000	65	260
TUSCOLA COUNTY—CASS RIVER.				
A. Watrous' mill, Watrousville,	700,000	------	2	4
W. A. Heartt's mill, "	1,000,000	------	2	6
Edmonds & North, Vassar,	1,500,000	------	3	10
Richardson's mill, Tuscola,	1,100,000	------	3	10
E. W. Perry's mill, "	400,000	100,000	2	3
Frankenmuth mill, Hoovenor,	500,000	------	1	4
Holmes' mill,	300,000	------	1	3
ZILWAUKEE.				
Gang mill, and the Shepard mill, J. S. Westervelt & Co.,	1,722,000	1,000,000	33	60

Fisher mill,	500,000	.....	2	8
AT OTHER POINTS.				
Birch Run mill, Jesse Hoyt,	586,046	.....	1	3
Carrolton mill, J. S. Westervelt & Co.	2,700,000	.....	3	25
Blackmor's mill,	1,000,000	.....	2	12
Bad River mills,	2,500,000	500,000	4	22
Oliver & Co.'s mill,	1,500,000	.....	2	10
J. W. Turner, Chessening,	1,000,000	.....	3	10
Fuller & Co., "	1,000,000	.....	2	6
Haynes' mill, Swan Creek,	500,000	.....	1	4
The Halsey mill, Tittabawassee river,	400,000	.....	2	6
Shattuck's mill, Tittabawassee river,	400,000	.....	1	4
Four mills at Pine Run,	1,500,000	.....	6	12
Kawkawlin mills, Jas. Fraser, 1 water mill and 1 steam mill,	5,000,000	.....	8	40
Total,	92,523,160	25,969,200	276	863

The total amount of lumber sawed, as near as we are able to ascertain, is 92,523,160 ft., and by adding 1,000 ft. for every 2,000 lath, it will amount in all to 105,507,770 ft. But many of the mills manufactured lath, besides those above reported or estimated; and by adding all in, the whole amount would swell to over *one hundred and five million feet*, which, at the average value of $10 per thousand, would amount to over *one million of dollars*, as the total annual product of pine lumber in this valley. But there are also vast quantities of shingles manufactured, which are not included in this estimate.

The disproportion between the number of hands employed and the products of the mills, may be accounted for in part from the fact that some of them were running a much longer time than others.

The following statements from the proprietors or superintendents of several of the mills, have been furnished us:

EAST SAGINAW.

L. C. Whiting's Mill—Whiting & Garrison.—Amount of pine lumber sawed in 250 days, 2,100,000 feet; oak, 100,000 feet; pickets, (board measure,) 50,000 feet; lath, 700,000 feet. Number of hands employed, 10. Runs an average of 12 hours per day. The mill has

6 saws, 1 upright, the others circular, siding and lath saws. The cost of manufacturing lumber at this mill is $2 per thousand; lath, 75 cts. The lumber was sold at an average of $10 per thousand, without inspection.

Pierson Mill—C. C. Gilman, Lessee.—Amount of lumber cut the past season, nearly 1,800,000 feet. This mill has one upright muley, and one 4½ feet circular saw, for sawing logs and cants. Edging saw, butting saw, and lath works nearly complete. Running season about six and a half months, 12 hours per day. Employs 12 men. Engine 14 inch cylinder and 3 feet stroke. Three boilers, 20 feet long and 40 inches in diameter.

Chicago Mill, (west side of the river,)—T. Whitney.—Cut during the past season 1,315,754 feet lumber and 1,227,500 lath. Run from April 10th till September 26th, 22 hours per day; employing 22 men. This makes 145 working days, averaging a cut of 15,970 feet lumber and 8,467 lath per day. Has one upright saw and one edging saw, lath works and edging table. (A portion one inch and a larger portion half inch lumber.)

Detroit Mill—T. Whitney.—Cut 1,536,287 feet lumber. Run night and day from April 20 to September 29, with 12 men. September 29 to November 18, days only, equal to 11 hours, with 6 men. This gives 157 working days, at 22 hours, averaging 10,450 feet. One upright saw and edging table. One inch lumber.

SAGINAW CITY.

Payne, Kendall & Co.—Amount of lumber made is 1,783,071 feet; also 177,000 lath. The mill has run 150 days, 24 hours per day. Employs 15 hands. Smith Palmer, Agent.

LOWER SAGINAW.

Dunlap Mill—T. Whitney.—Cut 1,307,002 feet lumber and 225,700 lath. One upright saw, lath works and edging table. One inch lumber.

J. & B. Bird, Portsmouth.—Their mill makes about 15,000 feet per day. A portion of the past season it ran 12 hours a day, and gave employment for 12 men. Estimated product in the course of a season 1,800,000.

Moore, Vorce & Co.—Amount of lumber sawed, 3,200,000 feet—

about one-fourth clear, one-eighth second rates, and balance common. Number of logs sawed, about 8,000. 20 hands employed.

Doty's Mill—Wm. P. Doty.—Lumber sawed 3,373,000 feet, lath 1,464,000, pickets 600 bdls. Has run 12 hours per day; employed about 17 men.

McEwen & Bro's. Mill.—Lumber cut, 2,900,000 feet. Ran 24 hours per day, for 126 days, and 12 hours per day for 52 days. Employ 13 men making lumber, 3 lath. Extensive additional machinery has been made in this mill, giving it additonal facilities, and the proprietors expect to make about 3,500,000 feet the next season.

Watrous, Southworth & Co., Portsmouth.—Sawed about 2,000,000 feet lumber. Employ 9 men. Mill property, including dock, &c., cost four years ago about $12,000.

Bangor Mills—V. A. Ripley.—Made nearly 5,000,000 feet lumber, one-fourth clear and second. Number of logs sawed estimated at 18 to 20,000, (3 logs to 1,000 feet.) Also, 2,500,000 lath. The mill ran 175 days, 10 hours per day. Has two upright, one five feet circular, edging, lath, and slab saws, with a flooring or siding mill. Employ 26 hands.

The Drake Mill—V. A. Ripley.—Made 3,500,000 feet lumber, (one-fourth clear and second,) and 1,675,000 lath, using some 44,000 logs. Has two upright, edging, lath and slab saws, with a flooring or siding mill. Ran 175 days, 10 hours per day. Employs 15 men.

TUSCOLA COUNTY.

E. W. Perry's Mill.—From April 1st, 1855, to December 1st, a little over four months, cut 400,000 feet lumber, (clear and fourth 100,000, common inch boards 250,000, siding 50,000,) and 100,000 lath. Employs 3 hands.

The Watrous Mill, Watrousville—Aaron Watrous.—Cut 700,000 feet. One upright saw, one edger. Can saw an average of 5,000 feet per day of 12 hours. Employs 4 men.

VAN BUREN COUNTY.

LIST OF PREMIUMS

Awarded at the Fifth Annual Fair of the Van Buren County Agricultural Society, held at Lawrence, Oct. 11th and 12th, 1855.

Owing to the tardiness exhibited by those making entries, the committees had but very little time for making examinations and giving their decisions; especially was this the case with the committee on horses.

CLASS I.

Best blood stallion 4 years old, E. Southwell,	$3 00
2d best " 4 " J. Gurnsey,	2 00
Best grade stallion 3 years old, H. B. Clark,	2 00
2d best " 3 " H. Marshall,	1 50
Best domestic stallion 4 years old, Thos. Clark,	2 00
" " 2 " Alex. Sloan,	1 50
" colt 3 " J. R. Monroe,	1 50
2d " " 3 " Ira Olds,	1 00
Best 1 mare 3 years old, R. Hutchins,	1 00
Best pair matched 3 year olds, Hiram B. Olds,	2 50
2d " " " Austin Beaman,	1 75
Best horse colt 2 years old, R. B. Everett,	1 50
2d " " " Thos. Conklin,	1 00
Best mare colt 2 years old, B. Harrington,	1 00
" " 1 " R. B. Everett,	1 25
2d " " 1 " Orson Olds,	75
Best colt, foreign, 2 years old, M. Thayer,	1 50
2d " " 2 " "	1 00

Best mare over 3 years old, E. Southwell,	$1 50
Best colt under 1 year old, R. Morrison,	1 50
Best brood mare, R. Morrison,	2 00
2d best " M. L. Fitch,	1 00
2d best single horse, "	1 00
Best pair matched carriage horses 5 years old, A. T. Norton,	3 00
2d " " " " J. B. Olds,	2 00
Best draught horses, or horses for all work, M. P. Watson,	3 00
2d " " " " H. Harwick,	2 00

THOS. B. IRWIN,
PETER HARWICK,
ABEL BROWN,
Committee.

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CLASS II.

Best blood bull 3 years old, Allen Briggs,	$2 00
2d best " 3 " W. & M. N. Fox,	1 50
Best cow 3 years old, Walter Durkee,	2 00
2d " 3 " E. Southwell,	1 50
Best heifer 2 years old, Walter Durkee,	1 50
2d " 2 " L. Watson,	1 00
Best yearling heifer, Fletcher Harris,	50
Best bull calf, W. & M. N. Fox,	50
2d " " Alex. Sloan,	25
Best pair domestic oxen 7 years old, W. Blowers,	2 00
2d " " 7 " E. Southwell,	1 50
Best pair " 4 " E. Warren,	1 75
2d " " 4 " A. Vanauken,	1 25
Best pair steers 3 years old, M. J. Dunham,	1 50
2d " " 3 " R. B. Everett,	1 00
Best pair steers 1 year old, Eaton Branch,	75
Best domestic cow, Samuel Hoppin,	1 00
2d best " L. Watson,	75
Best heifer calf, F. Harris,	50

2d best heifer calf, J. R. Monroe, ... $0 25

G. B. CHAPIN,
J. B. OLDS,
A. S. BROWN,
Committee.

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CLASS III.

The committee on sheep report the number entered for premiums as being very small. Of those entered, most were full blood Spanish and French, and very fine. The grades, also, were excellent.

Best Spanish buck, Sam'l Hoppin,	$3 00
2d " " C. G. George,	2 00
Best grade " Ira Foster,	2 00
2d " " "	1 50
Best ewe, Spanish, S. Hoppin,	2 00
Best 3 lambs, French, E. Barnum,	2 00
2d best 3 " S. Hoppin,	1 50
One buck, John Lyle, discretionary premium,	2 00

One pen of five grade bucks were examined, and, had they been entered, would have been entitled to consideration. One buck was entered as a full blood which the committee think was improperly entered; it should have been "grade."

E. O. BRIGGS,
SAMUEL HOPPIN,
IRA FOSTER,
Committee.

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CLASS IV.

Best boar, R. Doughty,	$2 00
2d " John B. Olds,	1 50
Best sow, Leonard Watson,	1 50
Best pen of 5 pigs, Leonard Watson,	2 00

A. A. OLDS,
GEORGE MANLEY,
A. S. DOWNING,
Committee.

CLASS V.

Best coop Shanghai chickens, W. Durkee,	$0	50
2d " " John Sherman,		25
Best coop white Shanghais, John Abrams,		50
2d " " J. Sherman,		25
Best coop half bloods, John Abrams,		50
" Brahma Pootras, J. Sherman,		50
" Chittagongs "		50
" Cochin Chinas, "		50
" Golden Pheasants, W. Durkee,		50
Best pair geese, M. Leighty,		50
" turkeys, R. M. Haines,		50

A. M. PALMER,
JOHN LYLE,
ABRAM LEWIS,
Committee.

AGRICULTURE AND HORTICULTURE.

CLASS I.

There were no farms entered for premiums.

CLASS II.

The committee to whom was referred the viewing of farms and field crops, beg leave respectfully to report, that, as yet, no farms have been offered for premiums, nor any entries for the best acre of wheat. One half acre of buckwheat was presented, but no report of the number of bushels, nor of the manner of cultivation. One field of corn was also entered, but no details given. One half acre of potatoes was entered, but number of bushels not given. One acre of oats, upon which judgment is withheld until December next, according to by-laws. Three specimens of wheat (one-half bushel each) were presented to our notice, which were of excellent quality. There were no second class premiums offered for specimens of wheat or corn.

No hay nor beans entered. A very good sample of Poland oats came under our observation, on which we recommend a discretionary

premium of fifty cents. Also, a good sample of barley, upon which we recommend a discretionary premium of fifty cents. Several stalks of Baden corn—very tall and bearing from two to four ears each—were exhibited, but your committee think it too late a variety to cultivate in this northern climate.

Best half-bushel wheat, David Woodman, Jr.,	$0 50
" " buckwheat, Anson U. Barnes,	50
Best sample corn, Emery O. Briggs,	50
Best half-bushel barley, H. Dowd,	50
" " Poland oats, S. McNitt,	50
One peck marrowfat peas, Wm. H. Harrison,	50

E. BARNUM,
E. BRANCH,
A. STEWART,
Committee.

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CLASS III.

Best half-dozen cabbages, R. M. Haynes,	$0 25
" " beets, M. Leighty,	25
Best dozen orange carrots, Allen Briggs,	25
" half-bushel white carrots, Wm. Prater,	25
" peck onions, Albert Wildey,	25
" 3 pumpkins, Thos. Conklin,	25
" half-dozen melons, Anson U. Barnes,	25
" " ruta bagas, John P. Fisk,	25
" " parsneps, Allen Rice,	25
" sample red peppers, M. Leighty,	25
" yellow flesh squashes, W. H. Harrison,	25
" winter crook-neck " "	25
" Linconshire red globe turnip, W. H. Harrison,	25
" ¾ bushel potatoes, table use, J. Bunnel,	25
" 3 squashes, Michael Leighty,	25

WM. PRATER,
WM. H. HURLBUT,
GILBERT CONKLIN,
Committee.

CLASS IV.

Best variety winter apples, E. Branch, ... $1 00
" summer " Uriah Lee, ... 1 00
Best dozen fall apples, " 50
" golden russets, E. Branch, ... 50
" peaches, Allen Rice, ... 25
Best half-dozen pears, H. N. Phelps, ... 25
Best bunch of grapes, H. W. Rhodes, ... 25

WM. K. BUTLER,
IRA OLDS,
ELIAS HARMON,
Committee.

MANUFACTURES.

CLASS I.

There were no articles entered for premiums in this class.

CLASS II.

One piece oak graining, F. J. Lewis, ... $0 50
" graining on glass, " 50
1 specimen of lettering, " 50
1 Sinclair plow, No. 4, Sinclair & Mather, ... 50
1 Paw Paw plow, No. 5. " 50
1 iron beam " " 50

Two cider mills, foreign manufacture, very good mills, but the committee did not see fit to award any premium on them. Also, one buggy model, foreign; the committee would like to see one full grown in order to have a better opportunity of judging. Also one clover picker which the committee had no opportunity of testing, but think it a very good machine and would recommend a premium.

1 clover picker, Orris Church, ... $0 50
2 whip lashes, D. T. Fox, ... 25
1 fanning mill, T. E. Van Brunt, ... 1 50

1 set stove furniture, John A. Wallace, ... $0 50
1 washing machine, No. 97, ... 50

N. P. CONGER,
J. G. LAMMON,
T. E. VAN BRUNT,
Committee.

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CLASS III.

Best cheese, Leonard Watson, ... $1 00
2d " Thos. Conklin, ... 75
3d " in crock, Leonard Watson, ... 50
Best butter, Leonard Watson, ... 1 00
" Samuel Hoppin, ... 75

One box of honey, one bottle currant wine, two samples maple sugar, and two loaves bread were entered, but were evidently overlooked, as there was no report upon them.

H. N. PHELPS,
MRS. L. KEENE,
MRS. S. HOPPIN,
Committee.

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CLASS IV.

Best rag carpet, Mrs. J. Bangs, ... $1 00
2d " " Mrs. R. B. Everett, ... 50
1 pair woolen socks, Mrs. P. S. Grimes, ... 50
1 pair linen stockings, " 50

But a few articles entered in this class.

MRS. DAVID WOODMAN,
MRS. O. WARNER,
MRS. A. SMITH,
Committee.

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CLASS V.

Best quilt, Mrs. Olcutt Warner, ... $1 50
2d " Mrs. Decatur Downing, ... 1 25

Best counterpane, Allen Briggs,	$1 50
2d " Mrs. P. S. Grimes,	1 25
Best embroidered lamp mat, Miss H. M. Stewart,	38
2d " " Mrs. J. B. Glidden,	25
Best lamp mat, raised work, H. Dowd,	25
1 piece embroidery, J. C. Bunnel,	25
1 alum basket, J. H. White,	25
1 worked perforated basket, E. Branch,	25
1 basket artificial wax fruit, Miss Clara Granger,	25
1 boquet, Allen Rice,	25
1 box leather work, Mrs. A. D. Munger,	25
1 ladies' work basket, A. Moulton,	25
1 crochet collar, Austin Beaman,	25
2 embroidered collars, Mrs. A. Stewart,	25
1 ladies' head dress, Mrs. M. Buchanan,	25
Best 2 ladies' bonnets, "	1 50
2d " " "	1 00
1 piece needle work on perforated paper, Miss Olive Hawley,	25
1 piece needle work on skirt, R. W. Van Brunt,	25
1 piece crayon painting, Miss L. B. Bangs,	25
3 pieces needle work, Mrs. T. E. Van Brunt,	25
1 gents' dressing case, Mrs. E. L. Warner,	25
Specimens printing, I. W. Van Fossen,	1 00

MISS P. WARNER,
MISS H. M. STEWART,
MISS E. DOWNING,
Committee.

At the annual meeting of the Society, the following officers were elected:

President—Edwin Barnum.

Treasurer—E. Mather.

Secretary—O. H. P. Sheldon.

Executive Committee—Thomas Granger, Eaton Branch, W. Thomas, Robert Morrison, H. N. Phelps.

O. H. P. SHELDON,
Secretary.

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